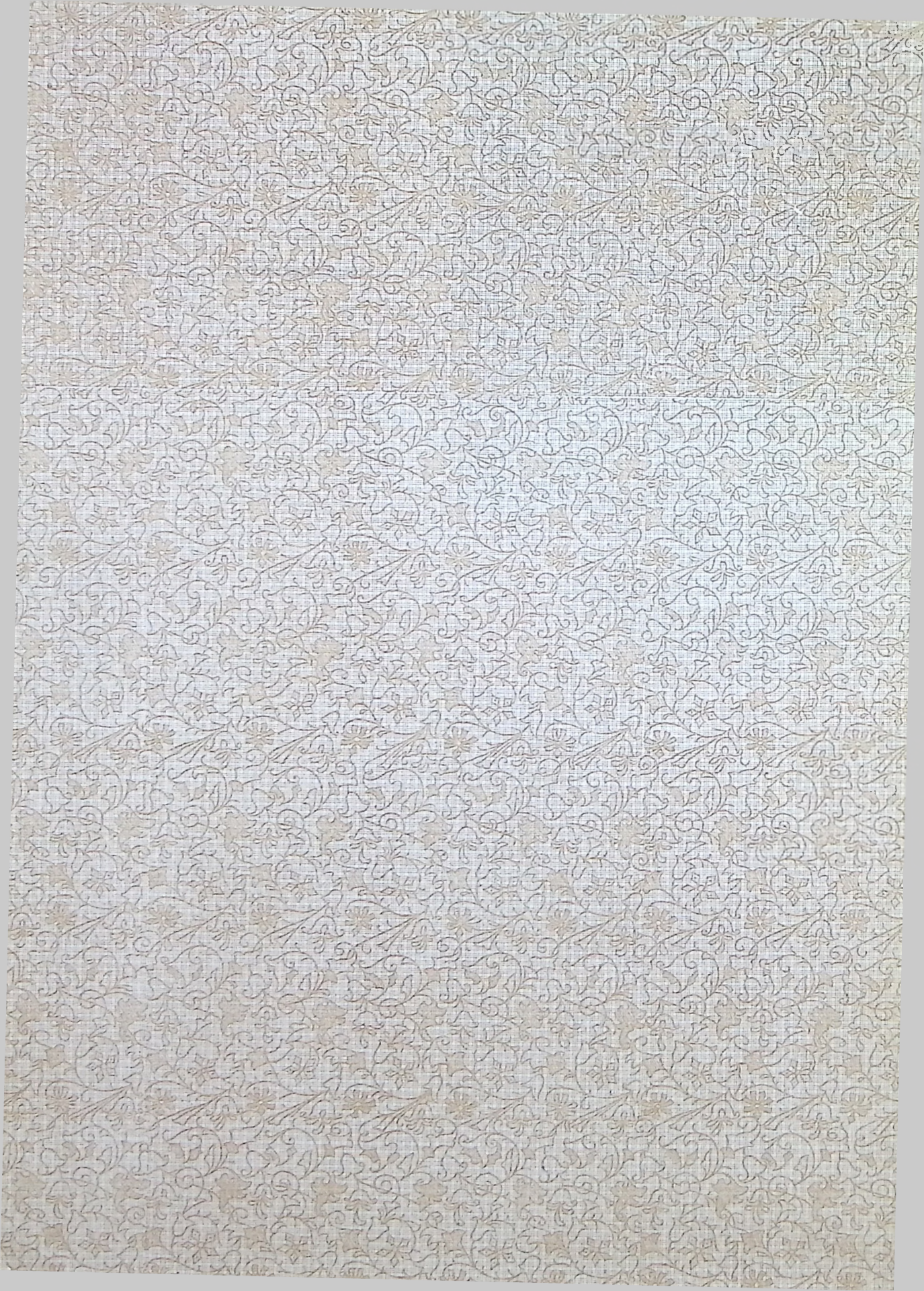




THE  
SCIENCE  
OF  
CHIRO-  
PRACTIC

VOL. II.  
*PALME*  
1907











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By Delta Sigma Chi Fraternity of Chiropractic,  
Continuing the promotion of STRAIGHT Chiropractic





May thirtieth  
Nineteen seventeen

Troutman, North Carolina.

I left my home in North Carolina the latter part of November, 1911, for Davenport, Iowa, traveling alone day and night, and arrived on the eve of Thanksgiving day weary and heartsick.

Through others I had learned that Chiropractic had helped paralytics and not waiting to learn what Chiropractic really was, I decided to take the course with the hope of seeing my mother walk again.



Thanksgiving morning I left my hotel for THE ICS and although it was a holiday and my coming unannounced, I received a cordial welcome, signed up for a twelve months' course and by the aid of student Hardie and the Palmer automobile soon found a nice room. December 1, 1911, I entered THE ICS as a student and that day saw my first Chiropractic adjustment. Being ignorant as to the theory of Chiropractic the open clinic at first seemed repugnant. I left THE ICS much disturbed, heartily wishing I was back in my North Carolina home, but later determined to stay the year out. The work was at first very hard, but so perfect was the system of teaching that by examination day I was surprised to know how much I had learned and was delighted when I got 99½ on the first test.

As weeks passed my interest increased. The work became easier then a pleasure, and to this day I consider the year spent at THE ICS the happiest of my life. I graduated December 3, 1912, and left the following day to visit relatives in Kansas. Chiropractic was well known there and many ladies begged me to locate there as they preferred to take adjustments from a woman instead of a man. I did not take up Chiropractic as a profession my only aim being to help my afflicted mother but by this time my enthusiasm was so great I could not miss an opportunity to show its merits.

I arrived home February 14, 1912, and that night took my first patient. So anxious was I to help the afflicted that I took in the lame, the halt and the blind, without money and without price, and soon found myself working day and night.



symptoms. His widowed mother was so thankful for results. Another case of double lobar pneumonia with bronchial affection was quite serious. In five days the patient was free from fever and sat up all through the eighth day. These were my most striking results. Many times recovery was very slow, but am glad to report enough good done in those few months to advertise Chiropractic in this county where it was unknown. To any woman with plenty of grit wishing to enter a profession I would say do not hesitate to take up Chiropractic, for I see in it a great opportunity for women which other professions do not offer.

Chiropractically yours,

*Ida E. Carvin*

June second  
Nineteen seventeen

Syracuse, New York.

I am not a graduate of the Palmer school. I do not confine my work to Chiropractic as I have been in business a good many years.

I have always admired The Palmer School of Chiropractic for making it possible for man and wife to work side by side in the profession.

I am sorry to see young men obliged to give up the work to enter the war just as it is becoming so popular with the public and they have worked hard to make it so.

It has always been a surprise to me that more women do not take up the work for the good they can do humanity. The income exceeds that of many other professions.

Any woman who fits herself for Chiropractic need never fear of failure or have time hang heavy on her hands. She must be sincere and thoroughly understand her business. No one will know better than the public whether she is proficient or not. It lies in her power to make it a success or a failure.

Chiropractically yours,

*Mary Bell W. C.*

May twenty-sixth  
Nineteen seventeen















*Ida G. Carvin*

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U. S. A

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**To my wife, Mabel Heath Palmer, D. C., who has labored and assisted this production, is this work dedicated.**

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**THE  
SCIENCE OF CHIROPRACTIC**

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**ELEVEN  
PHYSIOLOGICAL LECTURES**

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**Delivered by B. J. Palmer, D. C.**

**at**

**THE PALMER SCHOOL OF CHIROPRACTIC,  
“CHIROPRACTIC’S FOUNTAIN HEAD”**

**Davenport, Iowa, U. S. A.**

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**The Palmer School of Chiropractic, Publisher,**

**Davenport, Iowa, U. S. A.**

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**1907.**





B. J. Palmer, D. C., Delivering Lectures in the Lecture Hall of The P. S. C.

## PREFACE.

In the fall of 1906 a series of twelve lectures, the topics being an equal number of diseases, were delivered primarily for students, at whose requests they were made public. Innumerable were the regrets that they were not taken in shorthand and transcribed for publication.

When it was announced that another succession of twelve, to be delivered during Jan., Feb., and March, '07, were upon physiological subjects, I received many requests to have them taken down. The question was voted upon by friends, professors and students and unanimous was the feeling for their preservation.

You, therefore, may thank the earnest and sincere friends of Chiropractic for the pleasure of being lifted out of the mire of death or the sorrow in my destroying your gods, for, in delivering these lectures I gave, what are to me, honest convictions altho some of them will receive more thoro substantiation, yet the foundation stones are laid and remain firm. As to their efficacy, time alone must plant its imprint upon their inaccuracies or correctness.

The stranger to original research has little conception of the labor involved in thrusting upon me the preparation of this MSS and its publication, in addition to the manifold duties connected with the school. If the critical public, combined, will spend one-half of the time in *studying* that I, alone, have spent in investigation, before commenting or praising these new thots, he will but do the subject partial justice and if concentrated and keen be his observation, he cannot, in my estimation, help but raise the standard of specific, pure, unadulterated, philosophical Chiropractic which is destined to revolutionize therapeutics to non-therapeutics; chemics to mechanics; superstition to knowledge.



It is because I am aware of the extreme radical measures reached in this publication that students are urged to give each new thought careful digestion before forming an unjust opinion. Know that you are unprejudiced; have no previous suppositions to form your convictions with; place yourself "in my boots," if possible, then your opinions will be just.

This volume represents a partial list of the new ideas advanced at *The P. S. C.* during the past year. To establish the individuality further, than represented in *THE SCIENCE OF CHIROPRACTIC, VOL. I.*, is the aim of *VOL. II.*

B. J. PALMER, D. C.

Pres. & Sec. *The Palmer School of Chiropractic*. "CHIROPRACTIC'S FOUNTAIN HEAD," Davenport, Iowa, U. S. A., 1907.

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## THE EMBRYO.

Friends, Professors and Students:—It is appropriate, at the first lecture, that I, with pleasure, introduce the *first person to receive a Chiropractic adjustment*. He is comparatively a young man, and Chiropractic a new science, but in a few years Harvey Lillard will be honored.

At the time father began evolving Chiropractic, he had plenty of material which worked into his hands as it was needed. Chiropractic was, at this time, in such a crude stage that if this—the first case—had failed, he would have stopped further investigation. “Harvey, how long have you been deaf?” was father’s inquiry. “Seventeen years,” was the reply. “If I can but prove my thot that a sub-luxation of a vertebra must exist to cause this disease, in *this* man, I will have opened a new field, one in which I can demonstrate it in similar cases. When asked how such was caused, Harvey said, “I was in a stooped, cramped position when I felt something give way between my shoulders. My hearing left immediately.”

To prove the second thot, (all sub-luxations are caused by falls, wrenches, jerks and strains) meant to give them life. “Let me see your spine.” Close examination told of a sub-luxation which was prominent and how this disease, at least, was produced by strain. Had it been, as many cases we get today, with minor sub-luxations, father would have been disappointed and, in all probability, dropped further study. Father illustrates the closeness of this by comparing it with how near he came to not being alive. “My mother was a twin. The other one died; mother lived, weighing only 1½ pounds. If it had been mother’s sister that lived, where would I have been?” In September, 1895, he gave the first adjustment. With the second, Harvey was hearing. Twleve years later, in the lecture hall of *The P. S. C.* I asked “Have you had any deafness since, Harvey?” “None at all” is the reply. The characteristic and quicker results attained, in this case over the slow magnetic he was using, made father advance his studies to other diseases and to determine, if such was possible, one specific applicable to all diseases. The philosophy, as it is today, tells the outcome of years of labor averaging 18 to 20 hours per day. It does seem



that when many grand movements are in the bud, some men are endowed with peculiar faculties. Their every move is controlled by a something which exists in and around them. You have noticed some persons who seem to receive help from what appears supernatural beings.

Biology is the study of *expressed* life; morphology the research of *structure* and physiology the knowledge of function of living things. I have mapped, in this series of talks, twelve physiological subjects. They embody the functions of: 1—The Embryo. 2—Nervous System, Chiropractically Considered. 3—Sympathetic Nervous System. 4—The Senses. 5—Functions. 6—Reflex Action. 7—Disease, What it is and its Cause. 8. The Alimentary Tract. 9. The Urinary System. 10. Circulations, Serous and Blood. 11. Review.

“What is the embryo?” (*en*, in, *bryo*, to swell.) It is that *expansion* of germinal cells into a physical form which is taking place within the uterus. We will commence at fundamental, in our imagination, and create a mental and physical human being. I shall start at that basis which exists as a practical fact. Any question can be lead where it must be answered “I don’t know.”

The child is the evolution of generations. When this process started I don’t know. Do you? I shall aim to confine my remarks, tonight, to that portion of this progression that we have before us. A male and female must exist in a specie of anything to propagate its kind. In the human family, the male produces a substance—spermatozoon—which is characteristic in shape of a tadpole. It has an enlarged head with a tail. The female gives forth her proportionate share called ovum. This is round in shape. The male is the giver and female the receiver. At the time the spermatozoon is ejected, the female brings to the front an ovum from the ovary. Some claim that they meet in the Fallopian Tubes; others the vagina, but it is more reasonable to believe they would unite where they intend to stay—the fundus of the uterus. The majority of authorities concur with the latter. After contact, the external walls of the ovum, at one spot, fabricate; fibres split; to make an opening for the reception of the sperma-

tozoon. Here is where the tail comes into play. Acting as a paddle, it works thro the fibres into the ovum. Immediately after, the frayed edges close and heal. The product is a microscopical unit, one-half residing within the other half externally. Under the action of normally increased heat, the next process is one of fusion so that the two sex elements blend into the future characteristic child.

The first noticeable change is the "swell"ing of germinal, embryonic cells into the blastoderm, which expands into two, between which, at a later period, is created the center. Each contains individual characteristics differing from the other. This outer wall is termed the epiblast; the center one, mesoblast; and the most internal one, the hypoblast. Let us see why a "blast." It is that which takes a character and transforms the same substance into different form.

The embryo as it exists, after fusion, represents the future adult. I want you to know that the embryo and foetus are, when expanded, the future individual. The process which we shall portray is of simple cellular expansion. Each layer in performing this action blasts its individual structure. The hypoblast expands into the epithelium of the alimentary and respiratory tracts, also the cellular structure in digestive glands. The epiblast makes the epidermis and nervous system, the mesoblast forming the remainder or the bulk between the two. It is almost impossible, in studying physiology of the embryo or foetus, to demonstrate just where one tissue breaks off and another begins. The process of development is one of inter-blending; the intermixture of one into the other. The physiology of these tissues, as we shall study it, is very delicate when individualized.

How does each blast of condensed germinal cells expand to be the superficial skin of a mortal when it is the size of a pinhead in the first or blastodermic state? *How* can they expand into a full adult? This epiblast has within its walls an intercellular tissue. Within this are many germinal vesicles. What is a germinal vesicle? It is that enclosed tissue containing multitudinous germs. ("Germ. Rudiment of new being not yet developed. *Dunglison*"). It has a nucleus and its center is a nucleolus; divide this and we have many nucleoli. Each nucleolus is a germinal



spot. If you can imagine that each germinal vesicle contains millions of germs and each in turn, pursues the expansion process you can but vaguely grasp some knowledge of how the child matures to an adult. Its process is slow and steady; no one day or hour marks the difference between embryo to foetus; foetus to infant; infant to child; child to boy; boy to young man; or young man to manhood. He gradually expands into the various attitudes before the world. I will allow, as it were, a germinal cell to expand on this blackboard. It is now confined within well defined cellular walls, but it has an individuality, expresses thots and reasons. It will progress to a centrosome or center of attraction at the periphery. The walls break to permit freedom to show its makeup and discriminating quality. At it enlarges to and outside of this surface, it is proportionately adding liquid particles and, like a sponge, the more it absorbs the larger in size and the sooner it is a matured cell. The reticulum expansion creates a vacuum filled with serum, thus this process increases size and weight.

What does a cell look like? A tissue cell whether bone or other constituency has for general structure a net work of tissue called protoplasm, the *interstices* of which are now filled with serum. *What was formerly in collapsed form is now enlarged.* Contained within each vesicle—remembering that each blast has many vescicles—are millions of germs. When each have expanded, we have the completed epidermis of an infant. True, the process is slow but so long as there is a reserve stock of germinal cells to replace the utilized ones, life exists. When the retained store is spent, death is the result. *The P. S. C.* is the first school and Chiropractic the first philosophy that brought such explanations to the front.

As the epiblastic germs are enlarging, the same process is taking place within the other blasts. As each matures it is placed according to character and function. The expansion is not alone in size but quality and character. There are tissue discriminations and with a harmonic process of expansion, discrimination and appropriate deposition we have in the period of 280 days, or, as generally known, nine months, the completed *normal* object—the coveted child—to love, caress and adore.

What is behind this embryo that makes it expand? Do these actions happen, come haphazardly? Do they appear at random and the product of luck? To say "Reflex Action" or that of a "Sympathetic Nervous System" is incomprehensible and not scientific. This body, physically, has not within itself the property of self-government. Let us find a satisfactory answer to them. The child is a product of what? *Certainly of an intelligence* which is—cause and effect. Is it the product of *mother's* education up to the time of birth, be she 18 or 40? You will agree, the youthful mother can deliver as perfect, handsome, cheerful, healthy and intelligent baby as her older sisters. Is the mother, with her *limited* education, perhaps never attended school, the creator of her child? Did *she* direct the deposition of these various tissues and place them where they are? Could *she* determine and demand the sex desired? No! We must look to an *intelligence* greater than that possessed by the educated mother even tho she be a university graduate.

What is the first organ built? I say *built* because the body is the finest mechanism made. Nothing is built, created or made without a guiding hand. The incipient expansion is the blastoderm and the first from that, the three blasts from which is expanded the first organ—the embryonic brain and nervous system. From this period on it is a constant, direct communication between the mother Innate to what will, at birth, be the Innate brain of the child. It is this guiding mentality that matures the form of the physical child—the embryo to foetus and foetus to birth. It is, as it were, the expanding or unfolding process of the bud to the most beautiful rose. This embryonic brain, at birth, becomes the Innate brain. *Now* is when this inherent power takes possession and proceeds to live within. She or he is just as capable, complete and will direct the functions of that infant as thoroly then as in adult life. It is called instinct, often times, for want of a better knowledge. Chiropractors (of *The P. S. C.*) supply the missing link; definitely elucidate its mysteries and demonstrate its existence.

How great and intelligent such a controlling mind must be that can command and execute millions of cells to expand in proper form, shape and discriminate



between them in texture, function and then have the ability to place each where it must be. This distinction continues until we have one arm, its mate, then a foot and its opposite, in like manner the process simultaneously continues thru the three blasts, expanding the embryo proportionately in all directions, hence the future child advances no one place more than another, after the embryonic brain is in action.

Man tries to find how sex is determined; what is the secret that produces male and female? Where is *he* who has an infallible rule?

Cells continue taking their places until the matured normal *form* has been reached. The mother Innate has completed her labors; she places her thots into expression; the quickening process is started and maintained until the child is expelled.

You ask the question, which precedes, life or breath? Life is necessary to make breath possible, again, it was dead matter until breath took place. I don't know. Our child is, on the outside, an independent unit.

The process before birth is the maturing *to shape*. That following the maintaining or keeping to a normal the form as given before birth. By accident, you remove a large portion of a member; the arm will never turn in form but the stump and sore will be healed. "Healed," yes, but how and what is understood by that? A physician uses many names he is intellectually ignorant of, altho scientific in the use and abuse of terms. Even in the adult we have blasts and germinal cells and at the immediate time that injury took place there are germs, in process of expansion being carried to the wound, placed side by side until the external surface is covered by new tissue cells of the same character. As long as Innate can continue to use the brain as a medium for sending brain impulses to germinal cells and can, uninterruptedly, perform this action; life—in its fullest entirety—exists.

Co-ordination must exist between the mental and nervous system. The process of healing will not and cannot take place if there be complete interruption between brain impulses and its conveyors, the nerves. If there be such, then *inco-ordination*, a lack of harmony or non-expression of brain impulses, exists.

Chiropractic is philosophically complete. Death is the entire dissolution between mental and physical. What could and would take place if I were to cut or produce pressure upon nerves? A physician would say "degeneration." Some fractured femurs heal quickly and others cannot be *made* to do so. What is the cause? Inco-ordination, and the physician does not know where. There is only a partial harmony between the mental and physical. Pressure upon nerves restricts the quantity of cellular expansion, thus there can be no healing of the wound. Disease is in proportion to the degree of pressure upon nerves. If 90 percent of pressure exists, it is almost but not quite death. If 50 percent, it is one-half doing its duty, etc., etc.

We have studied the process necessary to give to a mass of tissue its *normal* form. Let us briefly look into (altho a lecture by itself) the causes of abnormal forms or prenatal monstrosities.

The connection, direct, between the mother's Innate and the embryonic physical brain is by means of the umbilicus, thro which, are nerves bearing direct messages. If the mother's spine be examined and there be found no sub-luxations to produce inco-ordination, then *her generative* organs, at this time, will be capable of normal duty. If abnormal, we may fine the umbilicus (normal 20-21 inches in length, 1-5—1½ inches in width) varying in length from 20 to 60 inches and from ½ to 1½ inches in thickness. If the foetus fills the uterine walls to its capacity, what must be the change necessary to accommodate this additional bulky tissue?

The foetus is supposed to be in motion; the fact is this uterine body as an individual, has no independent action. The muscular walls of the uterus are constantly contracting and relaxing to get development and strength and be prepared for expulsion, thus shifting its contents from side to side.

This cord, during the uterine contractions, may convolute itself around the leg, neck or the body; once, twice or thrice, and become tightly drawn. Thus you know why a child is born minus an extremity. I can account for monstrosities which are born abnormal *in form*; that is a portion enlarged, very small, or abnormal in deposition,

viz., the foetal child has a spinal cloumn and is subject to the same law of cause and effect, to sub-luxations and consequent pressures thereon, an in adult life. From this are emanating nerves as thorough as in the adult. When the funis is wrapped around the vertebrae and becomes tight enough to produce sub-luxation, thus creating pressure upon nerves as they emit thru intervertebral foramina, intensify, stimulate or inhibit the functions; thereby increasing, decreasing or wrongly placing the expanded cells. If pressure be great, paralysis of brain impulse is the result and the organ can express but little expansion of cells, therefore minutae of portions.

"*Why* is the funis abnormal?" If there be co-ordination (between Innate brain and physical) within the mother, the generative organs could not help but perform these functions in normal manner. In all such cases, of the above, referred to, close examination reveals lumbar sub-luxations of the mother. Adjusting such, returning them to normal would allow uninterrupted communication to the embryonic brain. Then and not until would the child resume its normal and cease to be a monstrosity upon birth.

I appreciate your attendance and trust that I will see you all next Wednesday evening.

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## NERVOUS SYSTEM, CHIROPRACTICALLY CONSIDERED.

Friends, Professors and Students:—In discussing the nervous system, we have a question that is unlimited, but I shall outline its sub-divisions, in point of order; first, the embryonic nervous system; second, its development; third, location; fourth, function; fifth, how function is performed.

In studying the embryonic nervous system, we must consider what a child consists of. We are aware, at least should be after last Wednesday evening's lecture, of what the embryo consists. For those who were not present, I shall briefly allude to it. The embryo is that expansion of cellular tissue from germinal cells that takes place in the uterus. The spermatazoon consists of the male constituents of a human being. The ovum consists of the necessary female elements. The fusion of the two makes our future unit. Neither, alone, has all the ingredients. The two, amalgamated, make the child.

The brain, as a whole, is the first organic enlargement after consolidation of these elements. From this is expanded, at a specific inferior point, a minute filament or cord, which elongation is in proportion with the brain. The unfolding of the one is equivalent to the extension of the other.

That which enlarges first eventually proves to be the nervous system, (brain, spinal cord and peripheral fibrillae.) I wish to carry "The Nervous System" a step farther than is considered by medical or osteopathic anatomists of today. None speak of brain as the organ from which *all* nerves have their origin. Gray, as the standard anatomy, and the nervous system that it gives, is that external portion from the base of the skull outward. "The brain is a thinking organ and is used with voluntary movements. All others are sympathetic or reflex from spinal cord, solar plexus outward." The osteopath has the same abdominal plexus brain standard. These schools accept and teach that the brain is a part of the voluntary nervous system only.

I shall speak of the physical brain and spinal cord, which can be seen or sensed, *united with the mental*. I will teach the function of the nervous system considering the same from a philosophical and physical unity.

A great many think philosophy a science beyond their reach. It is not. It is comprehensible for the light thinker and unlimited for a philosopher. The M. D. considers your body from the physical plane. He studies physical diseases, treating them with physical medicines expecting to stimulate or inhibit physical organs. He does not know about nor look for assistance outside of the physical. The osteopath has the same physical anatomy, pathology and etiology, but using a different method of treating them. The brain is to him a thinking organ, but the how, what, which and who, is beyond either of their comprehensions.

I shall aim to put my thoughts into illustrated form. This process impresses a more elaborate and practical intelligence.

In considering the embryonic state of the brain, let us consider one (Nervous System) germinal vesicle, which is a microscopical vessel of germinal cells. The term "germ" is considered here as *collapsed* cells of microscopic size. A process of evolution takes place—development. Each progressively swells and, leaving its vesicular bars takes up a residence upon the outside. Many germs continuing the same process soon forms a definite membrane, which according to texture, quality, capacity, shape, deposition, and character is called a brain. Let us suppose that each brain has one million expanded cells. As they assume maturity in form, *each* must have a prolongation—the nerve fibrilla. This process fulfilled, we have a nervous system, brain, spinal cord and peripheral fibres complete. The spinal cord, with fibres, is but a continuation of the brain, until each terminates into a tissue cell. If the brain consists of one million brain cells, an equal quantity of fibrilli must be the result, consequently there will be one million tissue cells.

This formative process, is accomplished during the foetal life of the child. At birth it is thoroughly formed and the expansion, taking place, after birth, is necessary to keep the form to normal.

To pursue this study, we must know that the Innate

or body building brain has thoroughly expanded at birth—reached its normal in form. Its location; within the skull and the continuation of it by fibres passing, as a bundle, thru the spinal foramina and the branchings to organs will be considered briefly but broadly.

Suppose the stomach has two hundred *brain* fibres running to it. Could we start at this organ and so minutely trace each, or the 200 collectively, thru tissue, past or between arteries and veins, thru muscular fibres, they would eventually go thru the intervertebral foramina into the spinal cord. Could we still pursue the same fibres, we would find them continuing their identity thru the spinal cord, each landing at an individual brain cell. To weigh the idea farther; judge a tree. If the trunk could be exactly dissected, its “grain” would be found to consist of millions of fibres, some large, others small. If the trunk consists of 2,000,000 fibres, its expansion above, into foliage must correspond. For instance the first branching divides into two, one containing 2-3rds and the other 1-3rd of the original number. Division and sub-division continues until every leaf has its stem consisting of seven or eight fibres. Could we take any one of these, as small as they are, trace it thru the leaf, into the stem, to a branch, from that into a larger one, to the trunk and thru that it would be found ending in the ground as individual fibres. This brings to notice a cell to cell expansion philosophy, connection being made by the intermediate—grainy fibre. Brain cell (in ground) manufactures impulse, its expansion fibre—acts as a *direct* conductor to superior tissue cells. The same comparison can be made in any vegetation or animal.

At birth the child has two brains. Chiropractic has respectively named them Innate and Educated. Innate, that is the power, intelligence and knowledge born with, inherent. The latter is capable of running all innervative functions of the body at birth as at death. That child is capable of suckling the mother's breast, mixing milk with saliva, juices of the stomach and intestines; creating nutriment, making fecal matter from the remainder and expelling it from the body; controlling the kidneys in proper action; directing serous and blood circulations, and yet that child may not be one day old. *There* represents an



intelligence greater than man can place in comparison. This *Innate intelligence* runs all the functions of the body at birth, during life and ceases to live, in a physical body, at death. On the adverse we have an educated intelligence. This begins life as an organ *to be* expanded according to the whims and fancies of each individual, gradually unfolding until death.

I shall, in a condensed manner, illustrate *Innate*. We *know* that there is something that exists in and all around us, sometimes called an unknown power. What is this? Religious people call it God; persons who do not know call it Nature; another would name it sub-conscious mind; more call it intuition. It has a variety of names, but I shall give, what is to me, the most practical. This "power" is an intelligence, expresses individual characteristics. What it is, why and how expressed, the latter especially is a practical branch of Chiropractic philosophy. My *Innate intelligence* is not God but for want of better I shall refer to it as an emanation. This supply of superior force is being supplied constantly but it is not *Innate in me*, until it passes thru transitions. This sunbeam, as it were, must pass thru a sieve called mental. What remains, passes onward, thru the mind. Each step brings it nearer to a physical utilizable level. Having passed thru the two etherial processes let us now make of it a practical substance by proceeding thru the brain, converting it to a reality—brain impulse—physical power—life.

Let us consider relative sizes and values of these brains. The crude diagram represents, as it were, the two brains, the superior two-thirds delineating the *Innate intelligence*; the lower one-third *Educated intelligence*. *Innate* guides two-thirds, (if not more) of our body; *Educated* the remaining one-third. *Innate* brain impulses control all functions which exist *within* the physical being. *Educated* has to do only with that which is external. When I wish to see it is with my *Educated*; when I talk, the same is used. Voluntary movements are managed by impulses from the latter brain but I do not digest my food with it. The kidneys or bowels do not act at command, neither is innervative nutrition carried on by it. The majority of you—I am out of the usual—not knowing specific, pure and unadulterated, philosophical Chiropractic,

*try* to and voluntarily *aim* to guide Innate in running the body. When there is a lack of pepsin in the stomach, because something is wrong, you, educationally say, "I will artificially supply that chemical." You have been educated to do that. A Chiropractor says, "Are you insignificant people, living 30, 40 or 50 years, capable of directing to Innate how to run the body? Can you tell a mother how her newly conceived child must be made? Can you direct and utilize the forces necessary to make the son or daughter? Each Innate function is as supreme as that. Remember, when studying Innate you investigate that power which has *always* lived. When learning of the educated you are delving into that expansion which takes place between birth and death—something of insignificance when compared with the other.

Let us observe the divisions of the functions of each. We have roughly mapped the two brains, their relative significations. Each brain is divisible into many lobes, each is, in turn, composed of abundant cells. Each cell has its fibrilla; every lobe its multitudinous fibres; each brain its cable—both cables joined, is the spinal cord before inferior division takes place. Separation into lobes gives to each an individual and direct function. No. 1 controls the output of brain impulses which when expressed are calorific in function. No. 2 is motor. I shall name the third sensory. The next is (4) nutrition. The fifth is excretion, sixth secretion, almost indefinitely into the number of Innate functions which are involuntary to Educated. The heart action, for instance, is beyond educated control, yet but one of the many servants of Innate brain; at its beck and call every moment in the day and every 24 hours as long as life exists. From lobe No. 1 issues fifty thousand fibres. These go from that portion of the brain to a common center (just internal to the magnum foramen) there meeting the bundles of other lobes all passing externally to meet the large cable from the other brain, thence to pass outward as one to begin an almost endless branching to every organ and tissue thruout the body. When No. 1 lobe sends forth 50 M brain calorific impulses unceasingly and not hindered, you have a normal heat thruout the body. That lobe, and that alone, has the function of conversion of power into calorific brain impulses.

Let us take the next. From this comes impulses which when expressed are (to us) involuntary motor. I will here state the difference between voluntary and involuntary motor. At will I can and do pick up the eraser. Suppose it was a hot stove and accidentally, my finger touched it. "*Unconsciously* it was jerked from the stove"; "*Intuitively or reflexly*, it was removed." *There* was an involuntary intellectual impulse; one that showed reason, thought, discernment, discrimination; that come from the Innate brain before *I*, educationally, had detected that my finger was on a stove, hot or cold.

My dinner of oysters is in my stomach; that is I believe so, tho they may have passed into the bowel. I can not say to my stomach "You are working too fast, go slower." They are involuntary motor impulses, therefore not within the range of my voluntary control.

The third is sensory. When my finger, not intentionally, touched the stove, there was an impression that traveled in 1-500 of a second to my Innate brain from where there responded an *intelligent* impulse, which when placed into action, at the peripheral of an efferent nerve or nerves, took my finger from it.

This same process may be carried indefinitely thru-out. Each body has many glands, the liver, thyroid, spleen, each secreting an oil and chemical; as it is secreted it is sent out by the excretory. Each ingredient requires right tissues and substances to produce it. All are actions of involuntary motor, differently located.

Many other functions come from distinctive lobes of that brain. If you hold your hand on a human brain, you have no life. Give to that brain, properly placed, its Innate, then it has life. Connect with the brain, nerves and you have transmission of life. Place at peripheral endings of these nerves, tissue cells, and you have an outlet or proper substance for the expression of that which is distantly manufactured. Do you begin to grasp what life is?

The scope of the educated brain is limited. It is confined to those organs, which are necessary when coping with the external world. My eye has a voluntary and involuntary optic nerve; the ear has involuntary and voluntary auditory nerves. Each sense has its two sets. My



extremities have voluntary nerves. We have a few voluntary respiratory. The scope of *this* brain is, comparatively, as one-third is to two-thirds. The *functions* of *this* brain is to first convert, second to give impetus to *voluntary* impulse from brain to tissue cell, regardless of whether a muscle, finger, back, stomach, the thigh or any other portion of the body is to be moved. Do you doubt the supreme value of nerves—conductors—conveyors of impulses from brain to tissue cells?

We have to the left, a good skeleton. Let us study him as he was. In that skull was a brain. From that went downward and thru spinal foramin, where this steel rod is, a spinal cord. If you will notice closely, we have where these pieces of chalk are, small openings. Dr. D. D. Palmer is the first man, Chiropractic the first science, and *The P. S. C.* the first school that made these famous by calling especial attention to them, for at that point is *the cause of all* disease. Nerves branch from the spinal cord inside of the spinal foramin. Brain nerves emit thru the intervertebral foramina. Immediately they divide *and* divide, sub-divide and sub-divide again, until every tissue cell, small as it is, has its fibre ending at or into its structure. I have before me four individual involuntary brain cells, one from calorific, the second from nutritive, the third is motor and this from the reparatory lobe. Back of them exists an Innate which gives power, unlimited, so that they can give impetus to nerve fibrillae and if connection be unhindered, normal expression will be the result. In our next illustration these four fibres enter one tissue cell, each of which must have heat, action, nutrition and be repaired if injured. *What* is life? As long as brain cell No. 1 can transform and give to nerve these impulses, and the nerve can and does convey these calorific impulses uninterruptedly, will not this cell always be warm? Can it be other than *normally* heated? Suppose that midway between brain and tissue cell I pinch (just enough to irritate) that nerve—slightly impinge it, what will take place at peripheral? Excessive heat—*too much* heat. The majority would say “Fever.” The latter expresses nothing. You have been taught it, but that is no reason why we must retain it. *Excessive heat* tells

something. I shall produce heavy pressure on No. 4. A heavy pressure paralyzes; slight pressure stimulates. The resultant symptoms are, no more nutritious impulses pass beyond the point of pressure, hence decomposition at the peripheral—tissue cell. With excessive heat it decomposes quicker than if heat was normal. I am leading you into but one of the intricacies of functions that we examine in our daily clinic. In addition to the foregoing I shall place pressure upon this reparatory fibre which cannot now conduct reparatory brain impulses. What happens? Death. We have the combination of symptoms necessary to produce it. There is no nutrition or reparation, hence—excessive heat makes it much faster.

Suppose I should make another combination and slightly press upon this fibre conveying motor impulses. We have motor paralyses, yet reparatory may be in perfect order. This is, in a measure, depleting tissue but reparative and nutritive fibres are undisturbed, therefore will repair it. *Life* will continue to be partially expressed, only laboring under difficulties. This is why “I don’t feel sick, but I am not well. I am at the store or doing my housework, but I do not put the pleasure or vim in it that I should like.” They are not bedfast but are working under difficulties, trying to maintain a 100 per cent normal when but 60 or 75 per cent of impulses are possible. To a person who *has* health, hard work should be the greatest pleasure and life is worth living.

Brain impulses of right character, quality and quantity is a necessity to make functional-health and if this organ can interpret incoming impressions accurately and convert the external—into impulses, then there is only *one* thing that can make disease—the hindrance or obstruction to brain impulses from point of manufacture to that of expression, with the impulse conveyor the nervous system.

The allopath steps to the bedside. “Johnnie is sick! Put this under your tongue, please. Temperature 103! How have your bowels been?” “Constipated.” “Have you any pains?” etc., etc. “Mother, every hour mark, on this chart, his temperature.” Tomorrow he calls. “Let me see the chart, please. Johnnie has not been eating much?” “Just a little milk.” “Here is *another* chart.

Keep a record today." Day after day this is repeated, finally saying, "The fever is running higher. I don't know what to call it yet. It has not taken a definite form. Meanwhile I will make out a prescription; give one tea-spoonful every two hours." After seven to ten days he tells the mother, "We will have a long siege, for this is typhoid fever. I do not know whether he will pull thru or not." The M. D. continues from 21 days to 16 weeks to call three times a day at \$2.00 a call. He has a perfect vocabulary of symptoms, but when it comes to the most common sense deductions of *life* and *the cause* of disease he is found groping with superstitions. Chiropractors will take a back step for none of them, I don't care who they are, what college or university they are from or their position in life. The M. D., in entering the sickroom, only senses the physical. This is all he knows or cares to investigate. He does not consider sickness as inco-ordination to life. Suppose that child should die; there would be an absence of life—death. The typhoid child is but giving vent to abnormal quantity of life giving impulses, therefore is partially alive or dead. *Why not study life*; what it is and how it expresses itself, and if there be disease, what causes it? You say "The physician *is* studying studying the cause." Where? *Outside* of man. The Chiropractor confines his research, for each specific cause, *inside* the body. The M. D. drags foul marshes, sieves the air, digs into the bowels of the earth, examines water, hoping to find something which *makes* man sick.

Let us find a condition, in man, that impedes *brain* impulses, then we will have located exactly what causes a partial expression of life. The spinal column is composed of vertebrae, one set upon the other. Each is capable of limited movement. The body is not changed in any direction but that you move each vertebra slightly. There are ligaments, muscles and tendons, attached to them. Suppose, in the ordinary pursuits of work, you would receive a jar, concussion, or a wrench to your body or back, one vertebra should, by such "a mere trifle," slip beyond its normal confinement. Then we have subluxations of vertebrae. This is not *misplacement* or *dislocation*, but a partial luxation; enough of a *displacement* to produce pressures upon brain extensional fibres as they



emit between the intervertebral or movable foramina, producing partial pressure. This hinders the conducting ability of brain nerves to convey brain impulses to tissue for expression.

What *name* to give this or that disease, depends upon the degree of pressure, and *what combination* of functional nerves are involved. The combination of functions differ, and can be studied endlessly because no two people have the same.

There are two sides to every question. The M. D. and the Osteopath see no further than symptoms—the effects of results. What are you going to do with your patient? “You need a general tonic or stimulating manipulations to strengthen these organs.” “Where are you going to give me this general tonic?” “In the stomach.” Suppose the pain is in the foot. “Put it in the stomach.” If it was in the bowels? “Put in in the stomach.” What is put into the *stomach* never gets where it was intended. This man, after being drugged for months or years still has the same trouble. That is *one* way—to treat effects.

The Osteopaths have a better way. They examine for specific or general “spinal lesions” (which when located are effects or symptoms to a Chiropractor), and then devotes time *trying* to correct them. Contracted muscles, bad or impeded circulation of blood are the Osteopathic standbys, and no matter where found they must be treated. He does not take into consideration what life is any more than the M. D. The D. O. *tries* to do with his hands what the M. D. aims to do with drugs. Both are good in their place, but *are as nothing compared to the direct and specific method of Chiropractic* in localizing the cause of disease and its adjustment.

What does the Chiropractor do? Personally, if the patient would say, “My stomach is not right today,” I will explain his case as regards to cause and tell him more than he. Were I to take that stand, in general practice, ninety-nine of one hundred cases would say, “He pays no attention to my case.” It would be of more value to you and the world to allow me to spend one minute in studying cause than for you to talk four hours about your symptoms but it, apparently, does the patient good to tell your troubles to someone and you evidently think that that is

what I am compensated for. For instance, a patient from Oklahoma recently, said upon his arrival, "Tell *me* what diseases I have." At 2 P. M. he entered the clinic, "Class, this patient wants us to tell what his diseases are. How did I do it? Examination revealed several sub-luxations. *Each* has its organ or organs to which nerves, which branch therein, go to. As a natural sequence so accurately did we locate every trouble that I believe if we had gone further we could have told his character. Starting from cause and exactly describing effects, in a person never seen before, has its scientific value. Only digital examination was used. To apply mechanical appliances would be to get mechanical action and results. Specific, pure and unadulterated, philosophical Chiropractic uses Innate faculties. Conglomerated mixtures must resort to external measures which are as inaccurate as they are bunglesome. The Chiropractor spends his time in finding *that* which is causing *inco-ordination*. Co-ordination is harmony; *inco-ordination*—lack of harmony between brain and physical. The Chiropractor locates and accurately adjusts *the* cause of *inco-ordination*. That is simple. Why not think?

I am getting thirsty; what shall I do? I had to think voluntarily before I could put, into execution, the act to pour water from the pitcher. Do you realize that thoughts must proceed manifestation? Suppose there had been something wrong so that the thought, in the form of brain impulse, could not pass thru that nerve and express itself in that arm? That would be inharmony between that arm and brain. I want the water but the arm cannot be utilized as a medium to obey the brain—*inco-ordination*. The physician agrees there is something wrong in the arm, but don't know just what and where. The Chiropractor has definite knowledge and a specific adjustment, not to exceed one-half a minute, which as soon as corrected must, without question, return function.

I have aimed to confine my remarks, tonight, to two systems of nerves, the Innate and Educated. I have refused to speak upon sympathetic and reflex nervous system because we have those for the third and sixth lectures.

Innate is a master mechanic, such as you and I cannot duplicate. The workings that she has accomplished

under abnormal conditions are wonderful masterpieces of intellectual reasoning. Where there is a fractured bone, she may build a scaffold followed by a rigid bridge from one fragment to the other to strengthen and build it to normal. She can and has made pivot or spindle joints where formerly there was none. She will burrow an opening thru bones for the passage of nerves. These are but slight hints at the workings of some of the specimens in *The P. S. C.* Osteological collection. I extend an invitation to one and all to enter this museum and make a thorough examination. Stay as long as you want.

I thank you for your attention and hope you will be present next Wednesday, for I shall aim to make that subject as interesting as I have tried to do with "The Nervous System" tonight.

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## THE SENSES.

The known physical senses are sight, taste, hearing, smelling and feeling. These are received thru physical channels. How many may exist beyond, of the Innate mind, you or I do not know. A few people have some of the latter so highly developed that they become in effect a reality; the actual performance of the function is a declaration. I might refer to clairvoyancy or telepathy, etc. But it is not within the scope, tonight, to speak of "Senses" beyond those in common, daily use; which are known physically; if they be not known to my educated, I know do exist by their responsive expressions externally from Innate. We would not understand that a sense exists were it not for their expressions. You nor I could nor would not comprehend that we saw were it not for actions responding. I would not know that music was pleasant if it were not that I acted in a receptive manner to it. I could not realize that foods were tasted if not for the apprehension. There must be a synonymous action with each sense to let its actuality be a reality.

We do know, from previous talks that a man exists with a dual brain, one in which Innate resides and another thru which Educated expresses itself. A sense is that impression mentally interpreted, made upon one or the other brain. Place the tips of the finger, peripheral ends of fibres, in contact with a substance and you create an impression, conveyed by afferent fibres to the brain within one-five hundredth of a second. Within this remarkable division of time the mental knows *all* about it.

You ask what transition impressions must pass thru to be "sense." The brain and its intelligence, residing therein, whether that be Innate or Educated, receive impressions and place upon them the stamp of interpretation. This may be good, bad or indifferent, similar to the development of a film of pictures, which may be sharp, dull, indistinct or not focused, the exposure undertimed so that a poor negative (interpretation by process of developing) is the result. The fact of having touched the peripheral does not mean that we have "sensation." Chiropractors consider everything, from the external going inward, as impressions.



Impressions place into action unknown forces, which cannot be harnessed; or measured; which you and I have no control of, and then a physical quantity (nerve) carries that distinctive kind of action, and a physical organization (brain) receives these impressions and places them thru a period of development. After which, its demands must be replied to, and that response is the recognition and proof that there *is* a *sense* of this, that or the other character. The sense is the external, thru an intermediate, coming in contact with something internally. We see or hear, yet there is no skin to skin contact. There is the continuity of tasting, apposition of substances in feeling, which *is* the coming together of two material bodies; and its interpretation at one central point, either brain.

*Each* brain has its complete number of senses. The Educated brain can, at will, see; listen to music; touch and feel; taste anything which is placed within my tasting organs. Therefore, this brain *must have* fibres to entertain impressions. Every afferent fibre, admitting impressions responds thru a motor to the point of origin of the impression. We have a complete circuit by means of the brain.

I do not know how many more than hearing, taste, smelling, sight, and feeling there are in the Innate brain. There is so much that travels under the head of occult science, that is palpably a fraud, that I will not commit myself. Out of one hundred per cent, before the public in the name of clairvoyancy, spiritualism, etc., ninety-nine is fraud and one per cent genuine. That one per cent *is* honest, but it is not doled out at \$1 a sitting.

You can see why two brains, each working with an individual set of sense impression fibres, going into and carrying outwardly the motor responsive impulses; that whatever impression is carried to one brain is also impressing the other, therefore is never lost.

There are many impressions which are interpreted as pleasant and to these we grow receptive. There are those on the reverse, which one ore the other brain says (by process of muscular contractions after interpretation) are repulsive to him. How is it that merchants, seeing a well dressed lady entering the door; bearing the prospects

of being a good customer, you invite her to a chair and talk pleasantly to her. She has made a pleasant impression with your brain or brains. On the reverse, a beggarly appearing tramp enters. He may have a million in his pocket, but he made a poor impression; you call the janitor and throw him out. Your physical was contractive because he made a poor mental impression.

There are many things which conscience—a sense of the innate—prompts you not to do for it is not just, honest, but you can, by force of Educated, perform that act. Then comes pangs of consciousness, which cannot be restricted, there still being that intelligence, greater than the Educated, that you cannot get away from. You can domineer and command the Educated to overthrow Innate, temporarily, but permanently, you cannot. We may be able, in a measure, to dictate to and control the Educated man's ideas and impressions, but there is one being you *cannot* twist around your finger—Innate.

What is conscience? It is Innate voluntarily expressing and acting in response to voluntary impressions received inward. It is that good or bad, right or wrong, interpretation that is placed upon Innate impressions. This fellow is always ready to bore and bother you. Educated may persist in "stealing anyhow," but Innate reminds: "If I could but return those jewels I would do it," remembering Innate only has to do with all that is internal, therefore cannot utilize nor act with externals. A woman has this "intuition" more. It is an Innate voluntary action more dominant in women; she listens to its reasonings, is more susceptible and as a medium is more willing.

How often you merchants, who have a wife in business with you, have noticed similar to the occurrence of where a stranger enters and accosts you with, "Mr. Merchant, I want to borrow one hundred dollars; I am hard up." "What security have you?" He submits something which your educated senses, and as far as the intelligence of that brain knows, can be accepted as good. Upon returning to your office, to get the money, your wife says: "I would not do that if I were you. I do not *feel* just right about it." Every successful person wishes to reason all deals upon a business basis and is loathe to accept such

"women's foibles." He wants definite facts or logical deductions which could be passed upon by a jury. But to repeat that "his wife did not feel just right" is no excuse and would make of him a laughing stock, altho he runs no risk by not doing it and *might* have lost by loaning. The wife gave free rein thru her physical to Innate. Her impressions were keener and created a higher degree of interpretation, consequently, responding with more force, sufficiently so, to try and save one hundred dollars. Man has an Innate and should allow this to be developed the same as woman. That is why I daily urge upon you boys "Let you Innate sway your entire internal and as much of the external as you can," and you will not lose. That Innate knows a thousand times more than you and I ever will. Follow the appetite and inward desires and you cannot go wrong.

Each sense starts into action different characteristics. Impression is carried, by way of an individual fibre, thru spinal cord and to an individual lobe of the brain. It is there interpreted, for instance, as one demanding heat. Immediately that lobe which interprets impressions, communicates with the calorific. "We need more impulses, calorific in character, in the pelvis." There is an immediate response and heat is the product, *providing*, there be no interferences with these messengers from the time of leaving brain until expressed at tissue cell.

Another fibre might convey impressions which, when interpreted, might have the deductions that the ossum innominatum is broken and force must be directed to repair it. The Innate brain thinks; reasons and immediately responds with impulses. Cells are expanded from an ossific center; sent to and are accurately placed to make a correction according to some mechanical principle. Many of which are so beautifully portrayed in *The P. S. C.* collection which is the finest in the world. Fusion proceeds until the fragments are welded with the new material. This can take place whether the pieces are placed in apposition, or never set, which is found so frequently in animals, domestic or wild.

Again I call your attention to the intelligence behind all this, which tells each cell where to go and what to do. Whatever an impulse does, it is motor; that is, it gives

vent to action—function—life. When we cease to have life in whole, there is death, if a particle of life—function—is impeded, death exists in proportionate degrees. The different degrees are *named* according to what kind of death inaction is portrayed. We can say all impulses are motor but we subdivide each into a type. Call it calorific; reparatory or creative (as in organs of reproduction) it is motor.

Do the senses of the two brains (Innate and Educated) intercommunicate? You are asked to sense, by feeling, what the membrane of the bowels feel like. Can you do it? No. Why? Because you have no *educated afferent* nerves in that region, to receive impressions.

Is this chalk round or square? "Round." Why. Because of the interpretation following true impressions.

Do these *two brains* intercommunicate within the skull? No. There is no interimpacting at that point but there is a continuous intercourse between the peripherals where they do end together.

The following illustration is simple and practical to all. Those having constipation will recognize the reasoning. The bowels are ready to move. You go to the bath room; and wait, wait *and* wait. Bowels do not move, are not working and *you* reason that "Nature must be off duty." Anyone, with normal Innate voluntary function, ought to have a movement of the bowels and not know when such begins or is thru with. I do not know when food in the stomach is digested. I am not aware when food has passed into the small intestine. If the stomach and bowels are doing their duty, why should I *need* to know it? It is not necessary for the Educated brain to keep tab on those functions which its superior—Innate—senses and controls by the law of adaptation. This person has been waiting for Innate to do his duty, but, owing to the impingement upon those fibres, they are unable to convey brain impulses which could perform that action. Then is when Educated senses the inability of Innate to perform her work and concerted action follows. According to the two drawings upon the blackboard you will observe the rectum and anus in both. No. 1 of drawing "A." is the nerve fibril which conveys impressions to Innate brain. When fecal matter reaches the rec-



turn the impression passes to the brain; "This fecal matter is ready for expulsion." No. 2 Innate voluntary fibre carries impulses to perform the act. Rotatory action follows freely, in normal quantity, and the fecal matter leaves the body. In case "B." the nerves are impinged. The bowels cannot get their normal supply of brain force, therefore cannot maintain a normal equilibrium—are paralyzed—in action. No matter how many impressions went to the brain there was an inability to respond. Fecal matter gathers, without any prospect of being evacuated. In another moment an appeal for help is made to the Educated brain, in the form of impressions traveling to this brain, hence Educated responses follow. The forces, of both brains, *combined* are occasionally sufficient to produce the requisite action. If the constipation be a chronic or bad one, internal measures to soften feces are often used, not as a means of adjusting the cause or that there were any prospects of such, but as a means of making it possible for a movement.

The Educated and Innate brains do not talk these things over within the skull. Each is composed of many lobes (Innate brain has comparatively more.) It is these that intercommunicate with each other *in that* brain but not with its mate in the other brain. All lobes in Educated participate and the various lobes in the Innate brain hold communion but there is no crossing or telephone system from one lobe of Educated to another in the Innate brain. Each brain is independent of the other, yet each is dependent upon all the lobes within that one. Both, tho, receive the same power from a superior source.

In dealing with the senses, what they are and where, we cannot help but consider diseases of them. Each may be affected by an excess or a lack of the normal responsive function. These are most commonly sight and hearing. Why is one or the other minus? To have normal sight means the co-ordination of impressions, their interpretation and motor impulses to respond accordingly. Any one of these acting below or above the standard means *inco-ordination*. This condition can take place in the optic set of Innate or Educated brains, for each has its combination to sense external objects with. I have seen individuals who had a normal eye, so far as physical examination was possible, but could not see. Somewhere along the

circular path was a circuit breaker, and that switched impressions which never reached the brain. Some individuals have Innate sight and no Educated. When you study and appreciate such ideas it clears a multitude of secrets, explains many mysteries and "phenomena" which have never been previously intelligently answered.

You will realize how much greater is the ability of Innate over Educated by studying the expressions of both. The former is capable of placing a greater degree of interpretation upon them. If you desire to realize how great a labor, sensing and responding is, take upon your Educated brain, the duty of every organ and muscle necessary to control the body, for one day, and I will guarantee you will be glad when one hour has passed around. Could you, for one day, take an arm, alone, and control its very sense? Would you try the experiment of keeping up its wear and tear? When you know that Innate controls the entire body with its innumerable duties, will repair portions if fractured; (the normal alone proving to be an enormous task for the Educated) but Innate adds many another step, with the utmost ease, without bluster of horns or trumpet, but, as a powerful force will *adapt her powers to the conditions* that are constantly changing according to climate, age, sex, etc., etc., thus showing herself to be *the only master*. She can truly be called a *Master architect*, mechanic, etc., when examples of her work, accomplished thru the physical body, have been studied. With all this *as a sample* can you not see how great your Innate is; how noble is this intelligence? And then to think that many of you, relatively little, insignificant people will try to place your 40-year old intelligence in competition with that which *can not anywhere near be equalled* by the production of Educated man. Man's every action is but the duplicature, in part or whole, of a something which Innate has first made a possibility. So fearfully, wonderfully and philosophically is the human body made that scientists are beginning to realize that all inventions are but infringements on Innate's patent office. Trouble and worry, in the past, could have been avoided had inventors made a careful study of the devices employed in making these human bodies. The principles of the block and pulley or the tackle could have been discovered ages before, had our bodies been studied as a psychological unit;

from cause to effect or vice versa. There are several complete pulleys in the body, notably the movement of the eyeball inward toward the nose.

Engineers made exhaustive tests and experiments before they discovered that a hollow shaft or rod of iron or steel is twice as strong as a solid one. Yet Innate had patented this device in our bones. Every important bone is constructed on this principle. The ball and socket of the hip bones were the forerunner of the modern ball bearings, and it was the first self-feeding, oiling machine in the world. The value of air pressure and a vacuum was unknown to man until the last century, but every one carried the secret in the air tight hip joint which Innate Intelligence had designed to lessen the muscular effort to hold our legs upright.

Engineers have made wonderful progress in developing compound suction and circular pumps; but all of these principles are found in the heart, and this little pumping machine is still without a rival in the mechanical world. Innate has and will have had patented every device which has been or will be registered at Washington, D. C.

The principles of the safety valve, for steam engines, are not new. Our bodies carry the first safety valves ever designed. There are upward of two and a half million of them. They are sweat glands. Each has a valve which lets off heat from the body when it gets beyond a safe temperature. We cannot stand a rise of more than 8 to 10 degrees and live. If, therefore, the two and a half million safety valves were closed for twenty-four hours, death would supervene.

In the ear there is a little device which is the original of our modern compressed air inventions. The delicate drum of the ear must have an equal pressure from the outside and inside to receive and transmit the sound vibrations. To make this possible the Eustachian tube was devised. Its function is to regulate the air pressure.

No sensitive electrical device is more carefully protected than the spinal cord in its movable frame of vertebrae. Innate has adjusted its with more precision than the movements of the best watch.

A whole line of important patents could be evolved from a philosophical study of Innate. In the splicing of

broken bones Innate can give the best surgeon pointers. When a bone is broken, the splintered ends are surrounded with osseous cells until firmly held in position. Then gradually a layer of bone is placed between them and soldered together. All the physician can do is to bring the two ends together so that the joint will be, in a measure, smooth and even. Innate does the rest.

Much non“sense” is often shown in trials. How little it takes, from an attorney to show what little basis there is to the so-called science of medicine. The following brief reference, to the Harry K. Thaw trial, and a few of the questions asked and their ignorant answers from an expert. He has no knowledge of the *cause* of any symptoms. It proves the mountain of intelligence is easily punctured by an attorney with pointedly directed questions.

Mr. Jerome was carrying the witness thru the various tests of alienists to discern brain trouble, such as “reflexes,” etc., the witness nodding his assent and asserting that he knew them all, including the “Romberg test.”

“Describe the Romberg test” commanded Mr. Jerome.

The witness said it was a test of the brain.

“Oh, but that is not an explanation of the Romberg system. Do you know it—have you ever heard of it?” said the district attorney, testily.

Thinking for a moment, the witness replied “I do not exactly know it,” adding that he *might* have used it—that he *might* know the test—but not under the name of the Romberg test.

Mr. Jerome displayed the thoroness with which he has studied medical authorities to fit himself for the Thaw case by leading the witness thro a chain of questions dealing with *pathology, which at times seemed to thoroly baffle the witness, who hesitated time and again and evaded direct answers.*

Mr. Jerome further continued the tactics of the morning session, putting the witness through a rigid test *as to his medical knowledge.*

Mr. Jerome proceeded, “Doctor, does the cardiac nerve connect directly with the cerebellum?”

*The witness hesitated.*

“Well, resumed the inquisitor “maybe you can tell us



if the pneumo-gastric nerve joins the spinal column in the lumbar circle or in the dorsal region.

"In the dorsal region," the witness replied, after a few moments of thought.

Q.—Where is the dorsal *region*? A.—*I have not read much on that.*

Q.—Oh, well, never mind that. Tell me if it is not a fact that the pneumo-gastric and cardiac nerve are one and the same thing? A.—*They may be.*

Q.—*Don't you, as a specialist in nerve diseases and as an expert know which is which?*

*The witness remained silent.* District Attorney Jerome rained question after question upon him, *and no answer was vouchsafed.*

Q.—Did you ever hear of carsigitis? A.—No.

Q.—Getting back to the pneumo-gastric or cardiac nerve, is not it a fact that they do not connect with the spinal column at all, but enter the brain in the skull cavity?

*The witness hesitated.* Mr. Jerome relented.

"Are you a homeopathist?" questioned the district attorney, and the witness said "No."

Q.—Well, what are you? A.—"I am a *nervous* practitioner.

Perhaps you remember Mrs. Catherine Otto, who was, a few years ago a fortune teller in the West portion of the city. She hit it very close, *sometimes*, and frequently was far from the truth. The old lady saved some twenty-five thousand dollars. A young lady called upon her, for a professional purpose, and Mrs. Otto "read the cards" which portrayed that her husband was going to desert her. She grew despondent and committed suicide. Mrs. Schmidt, (Mrs. Otto's daughter) convinced her that a damage suit was to be brot, thus persuading Mrs. Otto to transfer all monies. The old lady, after the transfer, seeing the falsehood, began legal proceedings. The daughter, retaliated, with "The mother was insane, therefore incapable of taking care of such properties." She had been a former tenant and a patient at this time, therefore I was drawn into the case, as an expert witness, to testify as to whether in my opinion Mrs. Otto was or was not insane. "Is Mrs. Catherine Otto insane?" "No." "How do you

know?" "There is no cause existing." "What do you mean by cause?" "That her atlas is in its normal articulations." "What do you mean?" "That if an atlas is sub-luxated, it makes abnormal the functions of the brain. Mrs. Otto has her atlas in normal position, as I have examined time and again. If this be correct, there can be no insanity." It rather took this attorney aback. He said "What do you mean? Do you know what senile dementia is?" "I do. Yes Sir," I said, "Mr. Attorney and your Honor, what is the object of wasting time and going into detail; if there is no cause, why discuss what *might* have been had there been a cause which I have failed to find?" After a few more questions the case rested. Mrs. Otto received judgment. It was my pleasure to be informed, later, that this reasonable and positive testimony swerved the jury.

Chiropractors deal with impressions and that which interrupts their expressions. It may be that an insane person is able to *sense* normally but interpretation or expression is insane. It may be that an insane person sees, but that, alone does not make normal interpretation, which is insanity or diseased brain.

What is to be done in insanity? Go back to *cause*. Adjust that and return that brain to its normal capacity and capability. Interpretation then will be normal and expression follows likewise, then what have you? Co-ordination—Health, in all that the word implies.

If impression be given full power to deposit itself in the brain, normal interpretation follows and Innate brain can and does send forth responsive impulses and these are given an uninterrupted channel and are allowed to deposit themselves in tissue and are expressed, then co-ordination—health—exists. It positively cannot be otherwise. The circle is made from tissue to brain cell and reverse, a circuit unbroken. Action must follow.

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## SYMPATHETIC NERVOUS SYSTEM.

Friends, Professors and Students:—In the study of Chiropractic, there is possibly no one point upon which we so radically differ, from all preceding schools, as in eliminating the so-called sympathetic nervous system. I shall, tonight, endeavor, by illustrations upon the black-board, and quoting authorities, show how much they are in the dark as regards the origin of involuntary functions, and by so doing supplant it with a superior teaching of Chiropractic. The most interesting will be to enlarge upon the two direct systems, as taught by *The P. S. C.*, then quote what the sympathetic nervous system is as considered by medical (Osteopathy has the same) school.

You are aware that the child suckles at the mother's breast; the bowels move and the kidneys of that infant act; it is nourished by the milk eaten; you even realize that involuntary functions are performed as thoroly in the child, at birth, as in the adult, but have you ever studied the *why*, beyond the "nature" aspect?

You may endeavor to elicit replies from the infant, of one week or month, and there is no response. The educated brain is as yet undeveloped, therefore cannot answer. This is but one of the conspicuous differences between the two brains. The Innate brain is proportionately larger and has comparatively many more lobes than the educated. The latter controls all functions as come in contact with the world, and Innate all that pertains to internal man; its scope, therefore is greater.

From each brain emanated all fibres necessary to convey impulses which regulate the functions of the body. Each generative organ is composed of many lobes, as it were, and has its special function to perform. The lobe which issues calorific impulses will not propagate motor actions, nor will the excretive accomplish what is intended for secretive. They are confined and cannot compete with another. Each lobe issues its bundles. The many bundles, of the Innate and Educated brains, join at a common meeting place, internal to the magnum foramen—which cable is covered with three sheaths when it is commonly named "the *spinal cord*," altho I prefer "Brain Cord." This proceeds downward, representing the entire "nervous" system as it issues from both brains, thru

the spinal canal of the vertebrae. If there be such a thing as twelve cranial nerves they are but distant branches of divisions from the original 31 pairs as they divorce. I do not deny the existence of "12 cranial nerves" but I will give to the same *a new path* of travel. Instead of proceeding direct from brain to the organ, *within the cranium*, I will follow their path, outward, thru the magnum foramen and then thru some intervertebral foramina, proceeding thence to its organ, within the skull by a direct and well defined path, *according to nerve tracing* which has many a time deduced those tender filaments from the spinal exist to the periphery where the affection exists. Adjustment at that point returning its functions. *These are facts and are substantiated by results.*

Superior to the atlas we have the first pair of branches one to the left and its counter on the right. One pair divides between each two contiguous vertebrae from above downward. Altho the cord proper ceases at the space between the second and third lumbar, yet branches continue to emit thru the sacrum and between the sacrum and coccyx. The process from this point outward, is one of division, separation, and again segregation into nerves and they into fibres, fibres to fibrillae, which eventually terminate within some characteristic tissue substance. Generation commences at brain cell, which is then passed to an individual fibrilla, passes thence to the cable, thru the foramen magnum, down thru the spinal cord, emitting at its intervertebral foramina, thence thru the same direct channel to its tissue cell. Retracing the path would be to start at tissue cell, proceeding until it reaches the spinal cord, continuing its character as an individual fibre until it reaches brain cell. Each fibre connects brain cell to tissue cell, or vice versa.

I have reasons why it is impossible to have a sympathetic nervous system. Let me allude to the last *Dunglison's Medical Dictionary*, which is standard in every college. In speaking of this system, he says "Sympathetic, depending on sympathy. Sympathetic affections of the organs are *those morbid phenomena that supervene without any morbid cause.*" Can you or I imagine anything existing without a cause? Is it possible that "morbid phenomena" live or die without a cause? I cannot conceive,

as wild as my imagination may seem, anything which may exist without a cause, and yet *Dunghlison* gives such as a basis for his definition.

In speaking of "Sympathy," *Dunghlison* (23d Edition, P. 1082) says: "Sympathy. *Connection existing between the action of two or more organs more or less distant from each other, so that the affection of the first is transmitted secondarily to the others, or to one of the others, by means unknown.*" "By means unknown" takes, from under the M. D. and D. O., the very props which they were supposed to be upheld by. When a Chiropractor has intelligent deductions of *where, how, and what* those "unknown means" are, it fails to be a "Sympathetic Nervous System." Traceable knowledge of the Innate independent and direct nervous system fails, in all involuntary functions, to bear the slightest resemblance to a "sympathy basis." The M. D's. and D. O's. have been wearisomely toiling, for centuries, trying to build a superstructure that could shed common sense arguments; trying to account for involuntary functions upon a basis which has failed to demonstrate a result sufficient to make any honest doctor cling to it. Think of taking a "by means unknown" basis and from that work out a "sympathy" racket that a simple child would get confused on, let alone the many sincere men who have gone to their graves in despair that have failed to be any nearer to the solution at death than birth. And *The P. S. C.* is the first school that scientifically connects, by nerve tracing, that gap between mental and physical "phenomena;" accounting for every act, voluntary or involuntary, from an intelligent basis. He need not say "by means unknown" to cover up his mistakes whether buried or living.

*Cunningham's Text Book of Anatomy*, P. 702, in speaking of the "Sympathetic Nervous System," says: "The sympathetic nervous system consists of a pair of elongated cords, extending *from* the base of the skull to the coccyx; connected *on* the one hand by a series of branches to the spinal nervous system, and *on* the other hand giving off an irregular series of branches to the viscera.—*The distinction is not absolute.*—The non-medullated fibres in the sympathetic system are derived from



the axons of the sympathetic ganglion cells. Some fibres *appear* to contribute to the formation of the commissural cord.

"The Morphology of the Sympathetic System. From a consideration of its structure, functions and development, there *appear to be* two separate structures represented in the sympathetic nervous system—the spinal and the sympathetic elements——, it is certain that the cells and fibres of the sympathetic system possess a vital activity *apart from* their connection with the central nervous system. *The phylogenetic relation of the sympathetic and the cerebro-spinal elements in the system it is impossible to determine. It may be that the sympathetic system is representative of an ancient architecture independent of the cerebro-spinal nervous system, the materials of which are utilized for a modern nervous system; Examined in every light, it possesses features which effectually differentiate it from the cerebro-spinal system,*"

Dr. Cunningham knows that functions are accomplished. He realizes they are not under the control of the will, but, like his predecessors, they start and end "by means unknown" and "no foundation, no castle." He strives to tell where this system starts and ends and I am still pondering. What its functions are I must reason "by means unknown." "Isn't that logical, deductive reasoning? How long would such arguments exist if applied to the financial or commercial world? How long would it take to topple the greatest business if based upon "by means unknown?"

Morris, *Human Anatomy*, Third Edition, P. 879, says: "The Sympathetic System. It was *formerly* believed (showing that they change in theoretical anatomy as much as the physician in practice, according to fashion. If it was a *fact* or truth it could not be garbled) that the sympathetic and cerebro-spinal portions of the nervous system *were distinct* from each other, the sympathetic system being endowed with the supervision and control of the more vegetative functions of the body, whilst the control of the more animal functions were allotted to the cerebro-spinal system. *It is now known that the two systems are but parts of one continuous whole, and that the central terminations of both systems lie in the brain* (why did he not stop here?) and spinal cord; but though this close

association is incontestable, it must be clearly recognized that the fibres of the cerebro-spinal nerves are more particularly associated with the voluntary muscles, the sensory areas of the surface of the body, and the lining membranes of the joints, whilst the sympathetic nerves and the cells to which they belong are concerned chiefly or entirely with the involuntary muscles of the viscera, the blood vessels, and the hairs, and with the secretory cells of the various glands."

After carefully studying *Morris* the ? ? is unsolved. He does come almost, but not quite, to it and then slides off. It is easy to see that *Morris* is an original thinker. But, to go too far would mean to be "churched," a thing no M. D. or D. O. pleads for. Fear has greater terrors than starvation and ostracism that is bestowed upon the original thinker or doer.

*Dutton's Anatomy*, 1892 Edition, P. 327, says:—"The sympathetic Nerves control the circulation of the blood, respiration, nutrition, and all the various *vital* processes. They are the involuntary nerves, not directly under the control of the human will." In his six pages upon this subject *he does not state where it starts or goes to*. If we would supplant "The sympathetic nerves" with "The Innate brain and fibre system," it would make of the above quoted paragraph a Chiropractic thot.

*Macalister's Text Book of Anatomy*, 1899 Edition, has but little light to shed upon this subject. Altho discussed under its various locations none lead to a definite origin and point of insertion.

*Eckley's "Dissection and Practical Anatomy,"* 1902 Edition, P. 355, says:—"Function. To innervate viscera, glands, unstripped muscle fibre, bones, cartilages, fasciae, and conduits generally not under control of the will." The "will" here referred to is the voluntary one. *The involuntary will is not known* to the anatomical world, therefore it cannot be talked or written about. Involuntary functions are known of but nothing further than that they are "reflex actions" performed thru a sympathetic "by means unknown" nervous system. Isn't that a brilliant basis to account for involuntary functions—the greatest intelligence which rules, creates and guides you and I—the greatest mechaical machine made? How *stupenduous*—

*is—ignorance!* Dismissing the knowledge of an Innate will and the “sympathetic nervous system” is not under the control of such, and that such a non-existing (to them) will does nothing to such a nervous system, what does such a system do is answered by “It reflects.” *If*, as *Eckley* says: “To innervate” what? What is this “innervate?” *How* can this be performed without a guiding control? According to *Dunghlison*, “Innervation” is “The *nervous* influence necessary for the maintainence of life and the various functions.” Can you fancy such a crude state of “innervation” without a general or commander? Imagine a battlefield with no officers whatsoever, each man shooting heterogeneously because he but *reflects* the actions of another distantly or remotely reflectedly noticed across the field, and then you can conceive of what a glorious old time this sympathetic nervous system is having within us for it has no head nor feet, comes and goes without any restrictions or bars whatsoever. No parents to guide it, no restraining or advancing control for it is “not under control of the will,” and acts as a “Connection existing between two or more—“men”—more or less distant from each other, so that the affection of the first”—perhaps the D. T.—“is transmitted—to the others—by means unknown.”

*Werner Spalteholtz's “Hand Atlas of Human Anatomy,”* Vol. 3, P. 763, says:—“Systema Nervorum Sympathicum is formed: 1—By a chain of ganglia on each side of the spinal column, the ganglia *being united with one another* by vertical bundles of nerve fibres to form a longitudinal cord,” and as yet we have no head nor tail. A ganglion is a knot like enlargement upon the course of a nerve and each is supposed to be an independent center for the formation and dispensation of nerve power. Upon each “spinal nerve” is one of these and at many remote points are many “centers” where they are “united with one another,” giving to this system at least 62 independent brains. What a confusion 62 or more generals would have on one battle field. It would remind the observer of the pit of a New York Board of Trade. Common sense reasoning would unlimber such joints and determine that this could not be practical, that behind each movement must exist *one* intelligent brain to determine the character,

quality and quantity of impulses necessary to guide and restrict distant functions.

*Gray's Anatomy*, Fifteenth Edition, P. 798, says:—"The sympathetic Nervous System is (1) a series of ganglia, connected together by intervening cords, extending from the base of the skull to the coccyx, one on each side of the middle line of the body, partly in front and partly on each side of the vertebral column;" but as yet we do not know where it starts from and ends to. We are told it innervates involuntary functions, yet where this "innervat"ing force comes from, its guiding power; the *how*, *what*, *where* and *which* we are left to decipher as best we can. M. D.'s and D. O.'s *have not dared to think*; to grope with this weird material or challenge its existence, but try to demonstrate a different kind of an action by pleading to the internal with treatments on the external and thus fail to give relief to suffering humanity, that so badly need it. Dr. D. D. Palmer dared to think. Will and *can* you?

McClellan, in his "*Regional Anatomy*," Vol. 2, P. 200, is as clear and comes as near to Chiropractic thoughts as any I am aware of. This work is out of print because its author dared to be independent of the "Code of Ethics," as worshiped by men who think more of money than shattering idols.

In "The Region of the Back" we find "The very complicated courses of the nerve-fibres of the spinal cord to and from the medulla oblongata and thence to the brain have been most laboriously studied, *and there is yet much to be determined* regarding them. From delicate and careful dissection, from experiment, and from observation of pathological changes, a great deal has been learned, and the following description is now generally accepted by histologists, *but will doubtless be modified by future researches.*

"*Spinal localization is naturally fraught with great difficulty, and, like cerebral localization, requires a most exact knowledge of anatomy. Much has been determined, much is inferred, but there is also much to be ascertained.* It has been said by one of the ablest of modern investigators (Mills) that the value of a study in spinal localization depends upon the *exactness* with which *phenomena* are differentiated."

The latter paragraph tells much of the truth of all investigation. It has been made from and upon a sympathetic "by means unknown" suppositious base. It will be noticed that all authors refer to function as a "phenomena."

"Phenomenon. An extraordinary and unexpected event. *Dunghlison.*"

"Phenomenon. That which strikes one as strange, unusual, or *unaccountable*; an extraordinary or very remarkable person, thing, or occurrence. *Webster.*"

There is no doubt but what all involuntary functions are "phenomenon" to M. D.'s and D. O.'s because they have no knowledge of the origin of power or the starting point of nerves that carry such, therefore, every movement is "by means unknown."

Every function, expressed, ceases to be a "phenomena" to *P. S. C.* philosophical students. *Brain impulse must be carried direct from brain to tissue.* Let us stamp these with *intelligence* in preference to "means unknown."

Consider digestion. You are hungry. Certain foods are delicious and, if you are like me, will make a meal of those. Follow your appetite and you will but comply with what Innate Intelligence sees is needed for the body's good. Food enters the mouth; passes into and down the throat. What moves it? There is an excretion from the mucous lining, an oil that mixes in and around creating of your food, a bolus, and, being covered with this substance, allows it to slide into the stomach without resistance. Do *you* produce this oil? Can *you*, then, churn the food in the stomach or does *something else* do it? We know it is churned, after which it passes to the three divisions of the small intestine, for further digestion, the excrements being involuntarily carried out. Do *you* do it? No! Behind functions is another intelligence. To call it "Sympathetic" might pass with an M. D. or D. O., under normal conditions, but it does not meet the comprehension nor account for the cause of all accomodating diseased conditions, for does not *Dunghlison* say: "Sympathetic affections of an organ are those *morbific phenomena* that supervene *without* any morbid cause"? How to account for "morbific phenomena" without "morbific cause" is what has been echoing for centuries and still they hit the



vibration. (Applause). Chiropractic has started right. It has built a foundation that is impregnable, has stood investigation by the best. Why? It *has* for its foundation *the* knowledge of the M. D.'s and D. O.'s "by means unknown."

Water may be swallowed. Do *you* follow it thru all its intricate processes, until it leaves your kidneys? No. *You* do not and could not if you wanted to, guide the every action necessary to make of it a food and lubricator. This nourishment, after made, must be properly issued. *Can you* do it?

Suppose the radius is fractured. Do *you* concentrate your brain thots upon it, for fourteen days, until it knits? *You* do not, nor could not if you wished, control the impulses necessary to heal it.

Where is the child, woman, student, or philosopher, who can, if I give him all the various tissues necessary, put them together and make a child? Can *he* properly place them, saying nothing of the creating and making the tissues? Where is the man who could build a tree or put together the substances sufficient to resemble the form of a living object? *Supposing* man *could* place the various cells, could *he* impart to the voluntary created child that which is crudely known as "the spark of life?" Can *he* give to a corpse, life at command?

Here exists the trunk with its roots, at the bottom, and branches at the top, the ground line being between. The lower extremities are supping inward the requisite liquid nourishment to kee three cells expanding. Suppose I were to support the *theory* that the tree, as it stands, was incomplete—insufficient to live, that it is not able to and cannot maintain an existence. There is something lacking which it must have to sustain life. You say "May be, but what is lacking?" I reply, "The sympathetic nervous system of innervation, so that morbific causes can exist "by means unknown." (Applause.) Suppose I should say, "It needs the sympathetic system so that reflex actions have a place to play hide and seek, peek-a-boo, I see you, or you're *it*, in." I further argue that it requires a chain of ganglions on each side of the spinal column, to make such possible. True, we cannot establish where it comes from or where it ends, but it "does come" and "they must be there" for the "means unknown" to continue to play

their games in, and about the time I demand that every living organism must have such, you question my sanity. But, when I lead you to the body and tell you that very condition is *supposed* to exist, then, you see the ridiculousness of the situation. We have driven our theorist to a corner by a little common sense (anything can reach such a *scientific* elevation that it loses its practicality), and he offers the consolation that "we don't know different, we don't dare to think outside of the "Code of Ethics" so we must holdfast to the past, right or wrong, until the other fellows, that we have placed in jails for independent thinking, have forced us to recognize something better." (Applause.)

You ask:—"What are *his* reasons for this system?" Looking back even into Chinese history, thousands of dynasties before the birth of Christ, we find it was the custom, when sickness prevailed, to give the physical man *medicine*, the treating of effects. We have, from those times till today, always had two extremists. The allopathic, homeopathic, eclectic or osteopathic physician *treats man* as a physical character. The mesmerist, hypnotist, metaphysician or christian scientist, etc., claim if anything is wrong it is because the mental sins. If you can clear your mind from such thots you will be all right. Your Innate brain is not capable of running its business, therefore you must dictate to it.

The only man who reached the intellectual attainments sufficient to harmonize between the two was D. D. Palmer, who said "We must harmonize mental existence and allow it to be transformed by the brain, then expressed by the physical in a normal manner." We have tonight, an intellectual knowledge of the workings of a physical system in all its functions.

We cannot but reason that these are controlled by a mind greater than voluntary man. To say that they are the result of "sympathy," and you know, according to *Dunghlison*, it is "by means unknown," expresses ignorance.

Suppose a nursery man should approach you and say, "Every truee must have a sympathetic system to live." What would you say and think of his sanity. That is what I think of the M. D. He had to find something which would in a measure, *try* to supply his lack of knowledge of func-

tions of the body and he thinks he has furnished it and perhaps *has*, (until a free thinker, lights the match) and then where is it? Vanished, only to exist as an imaginary ghost. It will take time to convince him, that what he thought he saw was practically nothing. The M. D. is trying to account for "phenomena" thru physical "sympathy"; the Chiropractor proves his thoughts *by showing* (nerve tracing in the living and pathological osteological specimens after death) the great *intelligence* of an Innate which works thru a brain.

A person says "I feel sick in the stomach and have a sick headache." The M. D. and D. O. would say "The head is in sympathy with your stomach." Let me show you how nicely the Chiropractor analyzes this case. At a certain dorsal vertebra, *upon the left*, goes forth a nerve which reaches the stomach; *upon the right* fibres run to the throat and head. Suppose there is a sub-luxation at their spinal exit. If the intervertebral foramina are occluded on left and right sides, the head and stomach will both be abnormal in brain impulse innervation. Not that they are in "sympathy", "by means unknown" because each has its direct connection with the base of supply. A new student, in adjusting, in the clinic, might have thrown the sub-luxation a trifle too much to one side or the other; the patient will return saying, "You fixed my headaches, but my stomach is on a tear," and by aiming to correct this he may adjust too far to opposite, and again patient will come back explaining "You fixed my stomach, but my head was on a rampage." By placing to normal that vertebra, the patient will, the third time, say it was all right. In this one instance, one or the other or both could be had. With medical men this would be a good illustration of the sympathy between stomach and head, because he does *not* know *the real cause*.

Starting from somewhere and going to nowhere definitely, we are supposed to have a conglomerate chain on each side. We do not know, and cannot find, in nine leading anatomists today, the starting or stopping point of this chain. The fibres of it, so they say, run into and come from ganglions and where they are supposed to insert is enough to make the M. D.'s continue to guess at "morbid phenomena, that supervene without any morbidic

cause." (Applause.) I cannot pursue any study unless its premises are common sense, reasonable, practical and exact. I must be able to start at rock bottom and go to the top. In the Sympathetic Nervous System, I fail to find any antecedent other than "sympathy" for the ignorance of my predecessors and "sympathy" is something accomplished "by means unknown." Inasmuch as this philosophy holds to practical facts and my aim is to teach specific, pure and unadulterated Chiropractic, I cannot pursue a "by means unknown" study in like manner. (Applause.)

When we apprehend "sympathy," it does not convey a presentable reason for the intelligence expressed. To uphold that *you* grow because I grow; that *you* eat because I do does not give me the reason *why*. Can you say it is "sympathy" that makes your glands secrete juices because mine do? Can *you* argue that "because the liver secretes so does the spleen, that it is 'sympathy' that does it?" Can you argue that one dozen men, all going into business, to do each other, that they are in "sympathy" with each other? The more you embrace "sympathy" is to cling to a raft of air bubbles.

Shall we continue to concede to a sympathetic nervous system; reflex action and reflecting of one function to another "by means unknown" the control of such a great piece of mechanism as we represent? Will *you* give to some illogical system, whose origin or termination has never been definitely settled, a control of the body? Can *we* say this universe is controlled upon a *sympathetic* basis? How long would your or my business continue if we allowed our sympathies to run it? *Think* of functions, representing the greatest development of intelligence for you nor I could begin to guide one, let alone hundreds and will you then tell me they are based upon "sympathy", "means unknown?"

If you were to study Chiropractic physiology-function and how performed—philosophically—you would see it is impossible to convey such thru a meaningless set of nerve fibres. As previously stated, the M. D. had to have some sort of a talking basis. He did not know of the relation between mind and body. His nearest comprehension was "nature." By stimulating any one of your abnormal

functions, he could and did make you feel better. But it is not *stimulation* Chiropractors work for. By returning the occluded foramina to normal size, they connect the physical with mental, and in this way, account intelligently for all so-called "phenomena." Instead of existing as something "unaccountable"—supernatural, haphazard, maybe, or "extraordinary," he explains how every function is conceived, conveyed from brain cell, thru nerve fibres to tissue cell. He does not need to say "an impulse comes up to a certain segment, ganglion or center, and reflects down to some distant tissue." Sympathetic fibres may arise anywhere. They run very indefinitely. It is not a *system* because it has been built "by means unknown." When you have pain in the right toe and left knee, the *where, why and how* of such *definite* reflections, in the spinal cord, are *indefinitely understood* by the M. D. or D. O. Definite effects produced by indefinite cause. (Laughter.)

They teach that spinal cord segments control all involuntary actions of the legs, the generative organs, the control of the liquids in the bladder, uretha, etc. They will say, according to Sympathetic System, that an impression from the leg goes to the segment and if it is normally supplied with blood it will then innervate the sympathetic fibres, starting from there, and it is as liable to reflect to the liver as into any portion of the leg. Isn't that specific from a scientific aspect? Can you explain, by such random methods, the intelligence behind these actions?

Patient has rheumatism in right knee and left ankle. Nerves branch from the lumbar and pass to affected areas. If pressure be upon a stated proportion of this bundle, just that many brain impulses will express their transmission abnormally at peripheral ending in cellular structure. Some fibres to the knee are under impingement, consequently the patient complains of muscular inco-ordination—rheumatism—in that region. The Chiropractor will adjust the vertebral sub-luxation, taking not to exceed one-half minute, to release this pressure on both sides and the party realizes the benefit. How often a patient says "My rheumatism is switching about." It is because of the different degrees of pressure at different

places. There is no "sympathy" about that. Is there sympathy between the two legs that makes them pain at different places at different times? Chiropractic is direct, simple and does specific work. If we find a specific sub-luxation, use specific adjustment and have prompt, permanent results, it ceases to be complexed.

Let us consider the individual that says "I have indigestion, bloating of the stomach and that causes my heart to palpitate." *The P. S. C. clinic demonstrates many a case of bloated stomach and heart performing normal, and vice versa.* Does the sympathetic nervous system account for such facts? If so, how? The Chiropractor would say "The brain innervating impulses of each fibrilla are distinct and separate. The nerves emitting at H. P. in the spine, are impinged and cause heart trouble. The stomach has its specific sub-luxation. Each is separate and does not involve the other. Nerves going to this organ express their functions, definitely, in excess or not enough and we have an accumulation of gases. One disease need not exist with the other. Each has a separate cause."

Pressure upon brain fibres means lack of ability to convey impulse. The *only place* where pressure (constraining force) can be placed upon nerves where they are *entirely surrounded by an osseous structure* (the only restraining material) is at the spinal column as they pass outward thru intervertebral foramina. That which is *the cause* of all disease exists at these vital places, from atlas to and including the sacrum. We do not need a sympathetic nervous system to explain functions. If the fundamental principle of Chiropractic (pressure upon nerves as they pass thru intervertebral foramina, caused by a vertebral sub-luxation) *is the cause* of all disease, then Chiropractors have nothing in common to do with the, supposed to be, sympathetic nervous system. It exists in the ganglions external to the foramina, therefore *not* subject to pressure.

If the "twelve cranial nerves" originate within the brain and go direct to their organ, without passing outward thru the skull, there ought never to be a disease of these functions because they cannot be subject to pressure unless due to fracture or concussion of the skull. Today,



there are millions of people with diseases of these functions. Why? Have they *all* had fractures of the skull? Those "twelve cranial nerves" are but distinct branches of the original "31 pairs." They emanate thru the foramen magnum and are subject to the same pressures at the intervertebral foramina. *Chiropractors have traced them*; adjusted the vertebral sub-luxation and returned the normal function, which is proof of its correctness. For the inaccuracy of our forerunners we have but to look upon the highways and find millions of deaf and blind, etc. *Who* is correct; the one who treats effects with "sympathy" oil, "by means unknown" or he who has a *direct*, definite system, and applies it in the same manner and proves specific results?

Do you see where it leads us? If the sympathetic nervous system is correct, then man ought to be healthy, for there could be no derangement. The Chiropractor is the first that has said that the adjustment of vertebrae restores *all* functions. The M. D. does not do it, neither does the D. O.

I feel some of you thinking the question: "How do we prove the existence of a nerve from the 6th dorsal on right to the head?" Chiropractors are peculiar, if you will, in the manner in which they study the human body. M. D.s have been dissecting millions of bodies, of all sexes, colors and nationalities for hundreds of years, and not one has located *the cause* of a single disease. If you think he has, prove it. When he begins to trace, in the dead body, he follows that, sympathetic nerve up to a center and if possible thru to a ganglion which he *supposes* was *the* nerve that caused the trouble before death. Let us illustrate with a case of sciatica. They dissect the nerve that they think has created the mischief, and even if it were possible to thus trace it, they have never found that which interfered with its function, therefore are still in darkness regarding the cause of sciatica. The Chiropractor traces upon the *living* subject, a person who *feels* and who ought to know if we get it right, and with that unique *P. S. C.* study, nerve tracing, we follow its exact course. We are taught by anatomists that "the great sciatic nerve passes out of the pelvis through the great sacro-sciatic foramen. It descends between the trochanter major and tuberosity

of the ischium, along the back part of the thigh, to about its lower third, where it divides into two large branches. When the division occurs at the plexus, the two nerves descend together side by side; or they may be separated at their commencement, by the interposition of part of the whole of the Pyriformis muscle." (Gray P. 793 and 794, 15th Edition.) How does he know? Because he has cut it out *after death*. Let that *living* case, pronounced sciatica, go to a Chiropractor. Trace he will, starting perhaps upon the front, inside or outside of the leg. Inch by inch he will carefully and slowly trace that *feeling* nerve. Oft-times, while pressing on its path, the pain will be felt at peripheral which has the same feeling and character as sciatic rheumatism. If we vary the slightest, from one side to another, we miss that tenderness. Thus we proceed, inch by inch, and trace *the exact nerve over the hips* to the second or third lumbar. We have, now, traced out a nerve that no anatomy gives.

We have and do, almost daily, in our clinic, take an example like the given case of stomach trouble and headaches and start at one or the other and trace, from effect to cause or cause to effect, the nerves involved because it has the same feeling all the way. Upon the right of S. P. we trace a nerve direct to and under the right axilla around chest to throat or ear. Whenever touched along its path it creates a sharp expression of pain. That is another nerve that no anatomy teaches. It is but a sample of our work upon the *live* body. To prove the correctness of Chiropractic philosophy is but to adjust the sub-luxation, the head and stomach return to normal. The M. D. cannot do likewise because he is dealing with "nature" by "means unknown." The Chiropractor *knows* what power he has to deal with, where it comes from, goes to and by what means, he adjusts the cause of interference. Which is scientific, "sympathy" or knowledge? The M. D.'s have been trying to get results thru a sympathetic nervous system "by means unknown" and we have adjusted cause that made inco-ordination between the innate brain and our physical organs.

We had a nice case of enlarged thyroid—goitre—recently. Left side nerves examined and found quite tender. Upon inquiry to the patient: "Do you ever have pains in

the left breast?" "I frequently do" was the reply. That fibre lead to the breast and I wanted to ultimately reach the throat. We did, down deep, find our fibre, on the right side, and it was exceedingly tender. We traced that fibre thru to the thyroid.

I shall relate an amusing instance. We have another patient, with an enlarged thyroid, altho, having taken adjustments for several weeks, I did not know it. She had never called my attention to it and I was surprised when she said yesterday: "I can feel my throat is getting smaller." In adjusting on right side both nerves were impinged. One went to the head and the other to the throat. I was relieving the head and in doing so was reducing the enlarged thyroid.

Nerve tracing is a most unique, pleasant study. There are some things I cannot answer. The perplexities of to-day will be provided for tomorrow. As a new science Chiropractic has not been built in a day, week, month or ten years. In 12 years we have grown much faster than Osteopathy. It ran 30 years before it had a class of six. But look at the A. S. O. today, 750 students. But, our advance is greater. Last year, the 11th of Chiropractic, 75 students.

Summary:—Are the above conditions the result of a sympathetic nervous system or an Innate Intelligence expressed thru a definite, exact and specific nervous system? Is function "sympathy" or brain impulse? Is function expressed heterogeneously as in "reflex action" or the response to a commander? Is life but a may be, haphazardness expressed or can it be deduced to tangible form?

I thank you all kindly for your attention this evening.

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## FUNCTIONS.

Friends, Professors and Students:—The study of functions is the observation of action. When we see this, it is life applied, existence expressed in a physical manner. We must start at definite points and reach final conclusions. Function is action and, it is impossible to have *known* life before execution is perceptible. *Life* exists, mentally, before its expression physically. Nothing is enacted in the physical but its mental equivalent must precede it. When we conceive that two brains, have passed thru them, an unsensed substance, which the brain transforms, we call it function after expression.

The brain, as a part, is the first embryonic organ formed. Life exists around us at all times. Should we wish to take one hundred pounds of life, we could not do it. To measure it in square inches is an impossibility. It has no space limits; exists in unknown quantities and cannot be confined. It is sufficient to know that a portion of this unseen force passes thru the medium of the brain of each plant, animal or human being and there makes its existence known thru a physical intermediate. Altho, of the same consistency and making the individual live, it is, by him, unseen, altho performing his functions.

The brain function is the first incipient action. What is this? To transform external etherial force to an internal physical power. Electricians are aware that a transformer is a converter; the same exists here.

These brains have, combined, a spinal cord, extending from it, which is an elongation of fibres from brain cells.

The next function—of spinal cord—is a transmittor; to conduct that which is transformed. You ask “By what means does the spinal cord carry, transmit or conduct this force?” Each impulse leaves its brain cell with a cellular contractile impetus which is sufficient to deposit it at extremities. Altho unlimited, around us, it *can be* constricted, confined and estimated in lack or excess of quantities or quality, by obstructions at intervertebral foramina, a condition which will never be seen with the microscope. That is why it is not spoken of by M. D.s. “What cannot be seen does not exist.” Can the electrician tell *how much* passes over a wire? Yes, by the quantity which is expressed in action. Can the electrician tell how *such* pass-

es over a wire? *If* he knew what electricity was, he could, *perhaps*, describe its transmission. No one knows what brain impulse is, but on the reverse, *The P. S. C.*'s philosophical students, know, most thoroly, *why and how* Innate creates and utilizes it.

Every function of the body is controlled by *brain* impulse. You will notice that *The P. S. C.* is, with this, like with all new ideas, the first to claim this keen distinction.

These brain fibres emit thru the various foramina and after their first division again sub-divide and continue this process of segregation until each cell or tissue has its fibrillae. *The P. S. C.* gives to each brain an intelligence which is capable of stamping, on each impulse, an individuality. With this comprehension we can easily understand why functions are harmonious. To "turn back" on the supposition that harmony exists because they are "reflex" or "sympathetic" does not meet the comprehension of a person who wants to know *why* the *intelligence expressed*.

When we look to the minute dissection of muscle, we find that each is made up of muscular fibres and each of these is composed of cells which has its independent brain, nerve and tissue system placing it in direct communication with the brain and subservient to its demands. Each fibre acts as a unit and the multiplicity of actions, guided by Innate, of the many makes a harmonious whole.

Bone, without mental intercourse, has no property to move. Living osseous structure, under a microscope, is gradually changing its consistency. As certain cells are utilized, others come forth. The expansion of germinal osseous cells, from ossific centers, is but the minute action, throughout the bony framework, which gives Innate another opportunity to express her *mental and physical unity*; adapting her power to the circumstances that have been, are present, or are expected.

All nerves are alike. Those coming from the brain are efferent, and express one character, motor. That is, each fibre will carry impulses which, when expressed, produce some individual, characteristic action or motion. What *kind* it will produce depends upon the type of impulse that is given to it at brain. The discrimination, in tissue, action between them, is due to the different species of impulses. In general they are motor but this takes on

many changes. When secretory brain impulses are placed in action, at peripheral of nerve fibres, it means that that tissue will perform a secretory act, creating a juice. Following this must be the excretion.

Nutritive or trophic impulses, when expressed at peripheral of fibres, mean that certain kinds of material, which have been carried there by actions of other brain impulses, are utilized to perform that function. We have also, calorific; that is, that character of brain impulse (spark) which, when expressed at peripheral, causes combustion to take place—heat. *The disposition* of the latter would not be in accordance with secretory or nutritive. When we cut, tear or bruise tissues, a reparatory sort of impulses are needed, which have that distinctive, expressive quality and when placed into action, causes repairing, thus, healing the injured portion to its normal condition.

The brain is the generator, maker, transformer or converter of impulses, and as there resides within this brain an intelligent mind (Innate) we must admit that to *Him* belongs the honor of giving to these impulses their distinctive qualities, not alone for the functions enumerated but all power that is created.

The generally accepted function of the stomach is "to churn food." The stomach, liver, spleen or any other organ has function to perform although each is supposed to express such. *Dunghlison*, says, P. 641:—"Function is *a special office in the animal economy, having as its instrument an organ or set of organs.*" Every tissue has "a special office" which is sent to it. Therefore all functions are mentally created and physically expressed. Function is one, but might be divided as: Mental manufacture and physical interpretation. "Johnnie is a lively fellow." Chiropractors mean that *Johnnie is able to put into action a far greater proportion of impulses than the average person.* He is more normal.

The stomach is composed of muscular fibres placed during the embryonic or foetal life, and are, daily, expressing impulses going to them and will continue so until unable to transmit, deposit or place them into action, after which, death is the result. As long as there are cells in reserve and they are capable of being expanded, then life



—*action*—can exist in that organ. Take away brain impulses, that would ordinarily go to the muscular fibres, so there can be no expansion of cells to replace those utilized, and death of that organ exists; there ceases to be an “instrument” for expression. The *physical* function of the stomach, is to promote contraction of muscular fibres. These produce a wave or rhythmic action and a churning-like movement is present. As long as food is in the stomach, Innate will adapt herself, with rhythmic movements, to mixing it with splenic fluids.

The movement of the bowels is peristaltic. That is, express a rhythmic-like movement through them always towards the external, gradually working, onward, fecal matter until it leaves the bowels. This is *bowel expressions* of life, although mental conception and propagation preceded it.

Study respiration. The lungs contract and expand. It is an Innate voluntary function; continuing alike whether asleep or awake. *Who* is it that guides and directs every impulse as it goes out? *Where* is this fellow that accommodates himself to the external and internal man? We run and breathe faster, perspiration follows more freely. Can you call those “reflex actions?” An echo is a good example of “reflex action,” but I cannot believe that my physical is the expression of an echo. My wish is to be a reality and explain its existence and actions by such means. To explain by “reflex action” is like hitting echoes. *Try* to hit it here and find it there; you attempt to bat it there and where is it?

Suppose we fracture the femur. Can you say that the fracture *happens* to heal? Is that an accommodation that is “just as luck would have it?” If these functions portray deep thought (they *do* to a Chiropractor and *do not* to an M. D. or D. O.) We must place behind them an intelligence greater than man. This gap is well filled by proving that *Innate* builded piers of exostoses and repaired it.

Abnormal brain functions may exemplify many mental aberrations. The brain is physical; composed of tissue cells, similar to the stomach or bowels. It must be kept to a normal of nutrition, calorific, etc. One, two, or any number of combinations of these, in excess or not enough,

means—disease—physical disease of the brain—with the inability of Innate to work through it—thus giving rise to what is commonly termed “mental diseases,” with physical portrayals.

If the brain is not sufficiently nourished, it becomes depleted and acts as a poor medium for etherial power to pass thro. It makes a weak transformer. That person is liable, under conditions, to do many peculiar things, talk faulty, in brief, be slightly or greatly insane.

Function is the expression of brain impulses thru an “instrument.” If at any time, an accident, strain or wrench occurs, and produces a vertebral sub-luxation, this, by occlusion, impinges nerves as they pass thru the intervertebral foramina, that are transmitting brain impulses to that “instrument.” To impede, hinder or obstruct the passageway is but to make its carrying or transmitting capacity less, hence shutting off the expression of that “instrument,” at periphery regardless of where located.

Disease, regardless of character or location, is but a loss or exaggeration of one or more specific functions; that is why, in the analysis of disease, at each recitation—Chiropractors resolve to “component” functions as well as cause. To simplify is the aim of *The P. S. C.*; to make complex, to try and meet competition is oftentimes the aim of improperly equipped schools. Remember boys, greater movements, all realities of life are based around *simple* principles. To act big when you have nothing behind it is but to heap ridicule upon your empty craniums. Beware of the sharper with the silk hat. He has poison or a carefully baited hook in the empty space underneath.

Yesterday, among the new clinics was a case of paralysis which is generally, a loss of function—motor power. There was not enough *motor* brain impulses going to those legs to allow normal action. Calorific, and nutritive motor functions were also involved. The hands and feet were cold. His extremities began to deplete themselves for the want of nutritive functionating impulses to maintain the equilibrium, under which he had been living. A Chiropractor analysis symptoms back to various functions and cause of each, thus reaching a definite conclusion—the adjustment of which returns normal health.

When summed up and down, every disease is a lack of or excess of function; too much or not enough of brain impulses. There is too much or not enough motion of the stomach; in excess or lack of action of the diaphragm, too much evidence of or absence of movement of the bowels; supply is too great or non-existence of voiding of the kidneys. In brain tissues we can have both, find the same in all organs or tissues of the body. The M. D. believes that if there is not enough life, "give something to stimulate and make more." The newly graduated M. D. has a thousand and one things to try. What would *stimulate* function in him may not in number two. No wonder it is called "practicing;" he is always *trying* to do something. After ten years he settles to three or four kinds of medicine (if he is honest) and many, after 25 years practice, only have two. When there is too much function, he has one to deaden, when not enough he uses *the opposite, to stimulate* and, finally (providing he follows the golden rule) he will quit both and tell the patient to try something on his own hook or live quiet until he dies. (Laughter.)

I was amused to hear that Dr. ———, who is one of the best M. D.'s of this city, adjusted a patient's atlas at ——— Hospital for deafness, which was restored. Either he sees the beauty of Chiropractic or *The P. S. C.* locally, has forced him to the issue.

Ordinarily the osteopath places great stress upon the tonicity of the spinal cord. He argues if the segment is nurtured, by blood, it is capable of sending out a normal quantity and quality of impulse, and this ramifies thru its sympathetic and is capable of giving normal reflex, provided the segment is properly nourished. *Clark*, in "Applied Anatomy" maintains that;—the intervertebral foramina may be occluded but that the damage is indisputably by the amount of blood it shuts off from, thereby degenerating the segment. So far I have not found where *Clark* stands pat to the principle that impingement of nerves as they issue *from* the spinal chord, thru intervertebral foramina, shuts off *brain* impulses and hence death (partial or complete) is *the* cause of degeneration or disease. He almost, sometimes had reached the crisis but eventually slides off by remarking that the blood supply

was cut off. The Osteopath handles vertebral sub-luxations with hot tongs. He always has and will for his working knowledge of them is limited to the *treatment* of such conditions. *To treat a sore* is different from *adjusting its cause*. In physical conditions the cause is a vertebral sub-luxation. This they are, *sometimes (very few)* aware of, and when they *think* they know it begin "scientific manipulations" to "*treat the osseous lesions.*" Thus never reaching sub-luxations or giving Chiropractic adjustments.

The Chiropractor is *many* steps ahead of anything found in osteopathic works. *The P. S. C. has every book*, that I know of, published upon that science. These were purchased to *prove* that Chiropractic is not osteopathy.

To study Chiropractic, from its psychological completeness, gives to man a unity that had never been conceded by any science.

Reading many books of M. D.s and D. O.s, their experiments and tests remind me of the following article. They are *trying* to definitely run down one effect and then *try* to prove it "reflected" from another. The osteopath tries to find a *lesion that made lesion*. Lesions make lesions through lesions and by lesions.

"One of our great universities has given to an investigating genius a degree in science of the thesis on the absorbing topic "The Longitudinal Vibration of a Rubbed String." Too little attention has been paid by science to the minutiae of every day. While erudite gentlemen have been measuring the saltatory efforts of the arctic flea, and other seekers after knowledge have been digging from Patagonian morasses the fossil remains of some monster with a name like a Polish pianist's, this far-seeing scholar has stayed at home and rubbed a string. He who seeks doctoral decorations need no longer dig through weary tomes or glue the tired eye to the exacting microscope. He may stay at home and pet the cat, as preparation for a disquisition on 'The Latitudinal Cross-Currents of Feline Satisfaction' or he may go fishing and enlighten a gaping world upon 'The Convolutionary Variations of an Empaled Anglemorm' or, again, he may make capital of a minor misfortune and win himself undying fame as a rec-

ognized authority on 'The Static Secretiveness of a Dropped Collar Button.' When a modern Aladdin can rub a string and summon an Sc. D., home made degrees should be within the reach of all."

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## REFLEX ACTION.

Friends, Professors and Students:—Perhaps you have noticed, while gathering tonight, the original spelling upon the blackboard. Originality, plus brevity, always succeeds, if it has quality and is a needed article. If you had seen the MSS's of the previous lecture, after twice revised, you would have said, "How little he must have said while delivering that lecture." I will take credit, however, that what is given is original, and, connected with brevity, will be of interest.

In "reflex action," we must revert to last Wednesday's lecture when we studied how little is known regarding the "sympathetic nervous system." Obliterating the "sympathetic nervous system" knocks the props of "reflex action," which is supposed to be the movement that takes place within this starting from somewhere—and going to nowhere system. If one is removed where is the other?

The following definition is a medical authority. *Dun-glison's Dictionary*, 22nd Edition, P. 953:—says:—"Term applied to an action *which consists in the reflection by an efferent nerve of an impression conveyed to a nervous center by an afferent nerve. A reflex action is generally regarded to be one executed without consciousness.*"

To make the above clearer I refer to this author's definition of "Reflection" P. 953. "Bending or turning back; duplicature;—Bending or turning backward of a ray of light." He does not speak of any transformation that must take place before it is "duplicat"ed. Bear these in mind for future reference.

Osteopathy and medicine are on a par with this system of "sympathy" and "reflexes." The following is quoted from *Osteopathic Health*, Vol. II, No. 2, P. 19. "Stretched along both sides of the spine, within the cavity of the chest and abdomen, running the entire length of this "backbone," are the gangliated cords of the sympathetic nervous system. This wonderful *automatic* (an automaton "without consciousness") system, with *its central power house at the solar plexus, or abdominal brain, furnishes energy for all the involuntary activity of the body—the machinery that runs as well while we sleep as during wakeful activity. All the bodily organs, but not the voluntary muscular system, are sustained, operated, controlled, regulated*



*by this sympathetic system. Its importance to life is obvious."*

The solar plexus is an "abdominal brain" and from this go forth "reflected actions" which control the body. Osteopathy says this system is an "automatic" one. If you could invent a man of machinery, who would work, walk and perform actions "without consciousness" then we have an ideal "automatic" or "reflex" individual. Any mechanical device which has its spring or power giving mechanism within itself is an automaton. A watch is a good illustration. It has, behind it, no intelligence; and upon that argument is founded the basis upon which M. D.s and D. O.s account for your existence.

When you are hungry and sense food; your "mouth waters"; that is "automatic", "without consciousness." In giving you new thots, tonight, and upon your arrival home you will debate the question with your brother, sister, or fellow student. The actions and power expressed but represents "reflex actions", "reflected" external conditions. You are "reflecting", unconsciously, what I have stated. No matter if you disagree, the power, necessary to perform the function, is but a "reflection." *Why* have you an appetite and eat certain foods, which taste good, to appease it? "Automatic", "without consciousness." The femur is fractured; it is built to normal, healed by the deposition of osseous matter. *Why*? "Automatic," "without consciousness." Your food digested, converted to chemicals, transported to all tissues of the body and utilized to your physical needs. *Why*? "Automatic," "without consciousness." Your bowels act, the kidneys empty themselves into the bladder, they are voided and all because it is "automatic" and because it is "without consciousness." *How* do you do anything? Does "automatic" or its synonym "reflex action," explain the *how* and *why* behind each and every action? One has not improved the other not the second its mate. Do you grasp, now, what "reflex action" is and what it is supposed to do? It is but an "automatic" action taking place in the "sympathetic nervous system," constant "reflections" of external conditions thru the reflection medium (as a mirror to the sun)—spinal segment, ganglion or nerve centers.

I knew a peculiar sort of a crank. As odd as he was

and is considered to be he has succeeded in keeping people a guessing as to what he would do next. His actions and thots are sharp, alert and ahead of the times. He holds to-day an enviable honored position because others are being taught to reach his intellectual level. His every thought was *Why?* Originality combined with strict discipline and stick-to-itiveness joined with principle and honor has made him many enemies, the majority of which are, knowing him better, turning from enmity to respect and reverence. Many students have been placed on the royal road to wealth, and a very few have, for mercenary, avoracious, greedy, hoggish, reasons that, childlike, to undermine his honor, and, they are still the cowards that are failing at every turn of the road. One by one the gradually increasing, compelling pressure has whipped them to the line of truth and justice.

He would study two bones, and by comparison, would find one normal and its opposite very much abnormal. *Why?* would be the first question. "Here was evidently a fracture united by a pier of exostoses, "automatic," "by means unknown" did not answer the *why* and *how*. When, by accident, a calvarium was held between himself and the light, he observed two beautiful forest fires, as fine as any artist could paint on canvas; to say that such was "automatic" did not reach his ideal nor answer the question.

When, in his earliest pickings of osteological specimens, a pigs femur overlapped three inches as the result of an unset overriding fracture and upon which was much porous surrounding spiculae and this was, gradually, being torn down in proportion as the fracture<sup>d</sup> surfaces became better knit. To maintain that such was done by "reflex action" or "duplicature" of the original conditions, which was a fracture reflected, "ending or turned back" did and would not answer.

The destination was *to place behind these actions an intelligence*, to disprove the "without consciousness" fallacy. To go to your daily business, return and rehearse that innervating functions, performed thereby, are "automatic" does not state the intelligence of your objects for so doing. Can you conceive that digestion is "automatic," "without consciousness"? Imagination cannot carry me far enough to believe that, the great intelligences that are

manifest under abnormal, diseased conditions, as we daily see in specimens from the largest and finest collection in the world, and the many accommodating changes studied, *where* and *how*, is answered by Innate who shows the greatest knowledge in circumventing obstacles; a pattern from which man must first trace back all his mechanical ideas; that all of these are "automatic"?

Medicine and Osteopathy are based upon and argued for with this "reflex action" by and thru the "sympathetic nervous system." Reference, to a typical example, will be found on P. 245, 17th Edt., *Kirkes' Physiology*.

"The heart of a healthy adult man contracts about 72 times a minute; but *many circumstances cause*, this rate—to vary even in health. The chief (circumstances) are age, temperament, food and drink, exercise, time of day, posture, atmospheric pressure, temperature." From the above we conclude (according to medicine—and Osteopathy has the same anatomy, physiology—which they have fallen heir to—) that external "circumstances" can and do "*cause*" changes to take place by "reflex action." The following questions are a consequence of disbelief:—

1. Can "circumstance" *cause* adaptation?
2. Can adaptation *be the result* of a circumstance?
3. Can circumstance *be the result* of adaptation?

The first is answered in the negative; the latter two in the affirmative. The M. D. or D. O. would consider it as a long settled fact that the above enumerated "circumstances *cause*" the adaptation of the bodily functions. *In what way* and thru what physical, definite channels are age, temperament, sex, food and drink, etc., anything to do? *Where* and *what* is that substance, thing, goal or place where such "circumstances" are discriminated between? A spinal segment, nerve center, or ganglion has not thinking abilities, and surely our brain is not in our belly, therefore age, sex, food or drink, are all as one. *There* is nothing in that which knows or realizes any difference between them. *Where* is the thinking propensity or direct connection? Innate power is no respecter of persons, plants or animals and will always adapt herself to the conditions presented for her to act thru. Adaptations are the *results* of an intelligent, thinking individual who has ability to thoroly control bodily functions; who can harmoniously

adapt one or more or any combination of many to any kind of "circumstances," internal or external (where it comes in contact with the object which she is controlling) at one time. Place your finger upon a hot stove. Instantly it is removed. Did your spinal segment think and know the difference between a hot or cold stove or did it even know the difference between that and a cold potato? It is plainly evident *you* did not do it for the hand was far from being in contact when you were aware of the burned portions' existence. The scorch is healed, with the deposition of new tissue. Did *you*, or your ganglion "without consciousness," place this new tissue? *Where* did these cells expand and *how* manufactured? A power is necessary, but is this but "reflections"? Can nothing be the genuine force? It is always the same answer "reflex actions." (Laughter.)

The "circumstance" *alone*, cannot "*cause*" adaptation. Something greater than an intermediate effect must be known of, and that fellow is our Innate performing thru Innate brain, which, situated within the skull, receives all impressions, from the external, interprets them as normal or abnormal and adapts herself in expressions, accordingly. This intelligence is not known or recognized by the M. D. nor D. O. other than as "Nature" and they might as well have nothing as to know what little they do about that. No wonder their failures, thots and actions are constantly being "reflected" ("bending or turning backward").

If the first "circumstance" be a fracture, the impressions must travel inward, be interpreted as such, and, impulses of the right quality, quantity and character are directed to the distressed point to proceed with reparation. They, thru the deposition of new cells, heal this break to as normal as is possible. By so doing Innate makes of the abnormal circumstance, to all practical purposes, a normal one. Thus abnormal "circumstance" may be the result of Innate adapting her forces to the abnormal external or peripheral conditions. It is but the common law, that is daily observable in and all around us, the law of adaptation. Knowing what to look for and how to find them will show many occurrences.

To replace "automatic," "without consciousness," or

"circumstances" with something that is intelligent, we must show that which is more rational. Behind every *responsive* impulse, is an intelligence which gives character. Common sense reasoning and playing the Sherlock Holmes on Innate, has given us a direct system, in which every fibre leads from tissue to brain cell or vice versa, which receives its impressions or transmits impulses and that is interpreted or expressed in tissue cells, a multitude of these, acting in a harmonious whole is but the normal living body.

A ball is struck against the wall and it glances somewhere or anywhere, just as liable one place an another, into the audience. Do such actions give the idea of directness? Impression, traveling inward, *happens* to "reflect" to a segment, or nerve center, and, like a spark of the electric wire, jumps to any surrounding fibre that is handy, expressing itself at its periphery, altho that may be far from the point of necessity. Can you imagine a human unit, complete in mechanical work and functions, that could exist upon such a hypothesis? It does not meet the comprehension of the grandness involved. You will admit, this type of principles, if applied to machinery, would not deliver the work in any shape or form that you or I would care to buy. This body is the grandest business in existence. It has lived thru eternities and man with his comparative feeble intellect has never added or improved upon her work. How much greater must be the application of such principles in preferenec to commercial work? If success is system detailed, then how majestic must be the "system" upon which the "involuntary" body is managed? Could such accidental means run you or I?

If your body were a rooming house, would *you* rent the running of your soul; the very fundamental of your building's existence to such a system?

At the central end of every *brain* fibre is its Innate brain cell and there receives external impressions, puts them thru an intellectual cross examination—interpretation—so that the extension (nerve) can transmit to the periphery an *intelligent* impulse denoting character, that directs where it should go and what it must do; then we have an *intelligent response* (not a "reflection, duplica-

ture" of what went inward) to the external appeal for help.

*Why* not eat poisons; as well as nourishing foods? *Why* does the stomach portray rebellious actions against medicines? *Why* shrink when the surgeon's knife enters the quivering flesh? *Why* object when instruments of torture (traction tables, for instance) are injected or applied to your deformed person? *What* is it that mutinizes against that which damages this temple or with open arms becomes receptive, submissive and loyal to that which is needful and beneficial? If "nature" be your reply I would ask "*Where* does she live in this system; by what means and thru what physical channels does she exert and demonstrate her intelligent force? When these questions have been definitely answered, the mystery blown away, the mist vaporated, we will have reached some conclusion; head and tail to our entity. A need which, suffering humanity has long needed and supplied by *The P. S. C.'s* philosophical teachings, thus reaching, proving and allowing physical vent to that which M. D.s and D. O.s still cling to as "reflex action" of that "connection existing between the action of two or more organs, more or less distant from each other, so that the affection of the first is transmitted according to the others, *by means unknown.*" (*Dunghlison*). The M. D. or D. O. are not "conscious" of an Innate brain or its "consciousness" but *his* Innate has. It is well that Innate "consciousness" is so placed that he, fool man, can not trifle with it.

In the study of spinal branches of nerves, all fibres do not spray immediately as they leave the spinal column. A cable may remain, as such, for some time distant and then begin the process of segregation. The abdomen is a large cavity and contains some of the most necessary organs, thus it needs have many brain impulses and nerves to transmit them. Many nerve cables proceed to a given point (solar plexus) and there separate to twig ramifications. The belly ganglion is but a branching point for the various functional nerves, pairing off to ultimately let each tissue have its complete set of functional conveying fibres. A blow, at this allotting point, would produce great *responsiveness* upon the part of Innate who would, norm-



ally or abnormally, adapt her powers to the "circumstances" be it great or small.

A patient entered the clinic a few days ago. Left side of nose was bleeding. "Boys we shall adjust a cervical vertebra as the cause of this disease. Such an idea is, undoubtedly, new to some. It was to the junior boys, for their note books were in evidence immediately. Nose bleed is a disease, and if Innate could adapt herself to such conditions, would try to heal it. Some people never have nose bleed, others have it occur upon the slightest external "circumstances." One adjustment, in the proper manner, ceased this hemorrhage within two minutes. This is not the first, second or third time this has been accomplished. *P. S. C.* students have the advantage of learning from preceptors who have had years of Chiropractic training and experience on all kinds of cases. The quick action, two minutes, following this adjustment, is but evidence which shows how accurately, and exacting is the adaptation of Innate if but given free range with her power, which healed or brot together those muscular fibres to contract, thus closing the breach.

Reference to the condition of the nose previous to and after adjustment and what difference took place will be interesting to illustrate what kind of responsiveness followed the Chiropractic adjustment. Every tissue has its small capillaries of arteries or veins. These, as minute as they may seem, have three muscular walls. The first set's fibres run lengthwise; the second spirally; the third, transversely. Each has its rhythms of brain impulses, contracting as it goes along and thus, the added motion, keeps the blood running forward.

The membranes, covering the external, internal and permeating between is serous, and gives to the blood, by osmosis, its serum. If this liquid was not in the blood, the latter would cease to flow; become solid. Take from blood its serum and histologists will agree that man could not live, yet the larger proportion of serum, in transitional stages, has no blood.

These walls, minus brain impulses, partly or completely, become proportionately relaxed and, sooner or later, a rupture is present. If the hernia, lack of muscular tonicity—inco-ordination—be complete thru the three

walls, then arterial blood will permeate *thru the interstices* between muscular fibres, osmose thru serous tissues and, hemorrhage, large or small, according to the area thus involved, follows. In this case, nasal hemorrhage took place because we had a definite, specific, local sub-luxation which impinged upon direct nerves, which conveyed the brain impulses to a direct locality. Adjusting this sub-luxation, within two minutes, returned co-ordinated functions, (the Innate law of adaptation) and normal conditions was the result.

I have had one case of uterine hemorrhage recently, which was nigh unto death and in two days there ceased to be any flow. Adjusting the sub-luxated vertebra immediately began to return normal adaptation to the abnormal circumstance—responsiveness—in which that brain, discriminating in character, sent impulses to these muscles and gave them the tonicity to contract to their normal state. The fibres drew together, the chinks closed—the interspaces grew together, and then and not until, would there have ceased to be an opening. Can you explain, in all sincerity, that those actions of healing are the result of “automatic” work; that such is performed “without consciousness,” “by means unknown”? If it is “reflex action,” “turning back” upon itself, would *it* not be worse? “*Itself*” is the *disease* and to reflect “back upon” *disease* is but to make *more* disease. This is the M. D.’s and D. O.’s basis—lesion makes lesion—because lesions “reflects” lesions, by means of “reflex action” thru “sympathetic nervous system” “by means unknown.” Isn’t that beautiful philosophy? (Laughter.)

Your living body, if normal, is but the work of and shows what intelligent responsiveness, when given full sway, will do. Your sick or diseased condition but illustrates the inability of responses to reach their destination and adapt themselves to abnormal conditions. Go to the nearest Chiropractor—not a hybrid mixer—and have the cause of interference adjusted.

If there has been a long pressure upon nerves, the system be depleted or the organ unable to maintain its equilibrium, then this responsiveness, even under the best adjustment, will appear tedious but every adjustment is farther from effects and nearer to normal. The

Chiropractor is an assistant to Innate, opening channels to *responsive* actions.

If you have belief (belief—partial assurance without positive knowledge or absolute confidence), to think that “reflex action”, as outlined and taught in medical or Osteopathic books or schools, does exist, please give me further proofs than have been advanced. If you suppose that the body is acted upon and being guided by a haphazard, catch-as-catch-can, Graeco-Roman actions, I will give you opportunity for debate.

The P. S. C. library is most thoro with authors which can be quoted in numbers. The most flowery speech, couched in the finest of words, aglore with medical and Osteopathic scientific terms and tests, taking hours to deliver, can be floored by one philosophical Chiropractic student, asking the lecturer a few common sense questions which *he* cannot answer. *Why?* They have unstable premises; none dared to think, to get from ruts, for fear of the code of ethics.

The “reflex action” is on a common with the “sympathetic nervous system.” I do not know what it is and do not know anybody who does. Like the man, who could not bear limburger, he did not like it and did not like anybody who did like it.

It is hard to talk about something which is not provable. I have tried to speak about “reflex action.” Our knowledge of cause and law of Innate adaptation to the normal or abnormal, proves to *thoro* students the supplantation of that which is practicable and demonstrable on the every day, feeling and living subject and, after all, that is what counts, is to adjust the causes of ailments and deformities in the *living* person, in preference to destroying sex, removing useful organs and otherwise mutilating our bodies, while living and making us well, that is what is left of our tissues after they are burned out by stimulatives or extirpated by the surgeon by hypothetical “sympathy” explanations, on paper, after we are “stiffs” dead and buried.

I do not believe such a system of “reflex action” (as worshiped, stimulated or inhibited by M. D.s or D. O.s) exists. What little results they have had was obtained thru the stimulated impressions *trying to* and, *in a meas-*

*ure* were accommodated under great pressure, accomplishing the extra or limiting the *responsive* impulses, thereby when the normal supply had been exhausted a relapse follows eventually leaving the patients worse, just the same, dying, perhaps, a trifle sooner than if they had been left alone.

The person who does things without intelligence is nonsensical and Chiropractors cannot recognize such as prudent or judicious to follow. Their testimony is only too often riddled by authority of courts, therefore, with the following summation of facts we will dismiss the case for want of sufficient evidence, upon the part of our opponents to defend themselves in this trial of *results* before the world.

Chiropractic vs Medicine and Osteopathy.

Start and Finish vs "sympathy."

Origin of Power and Point of Expression vs "sympathetic nervous system."

Direct Functions vs "duplicature" of "reflections."

Intelligent Responses vs "Superstitions."

Intelligence vs "by means unknown."

Knowledge vs. "reflections."

*Acute results* vs "*chronic diseases*."

Knowledge of cause, its adjustment and law of adaptation vs "Circumstances cause."

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## DISEASE, WHAT IT IS AND ITS CAUSE.

This synopsis, will be dealt with, tonight, compared with as a factory, and his sub-divisions as those of a perfect manufacturing establishment.

Man is a compilation of systems. Each is the aggregation of units, and every link but a multitude of cells. Man is the factory's superior in more than one respect, principally that thon has intelligence which lives *within* the structure and has the knowledge of locomotion. He is (1) able to move his factory from place to place to allow adaption to surrounding circumstances and (2) has the capacity to sustain self with its entirety. Hand made objects cannot do these.

We could make comparison by saying that fuel and water are placed into the factory's boilers—the product—steam power, which would be wasted were it not *for man*, thru *further mechanical* aid to confine it into the specialized work. In the human body we put food and water and, from that moment, we, (Educated Intelilgence) lose all guidance over it. From the time of its entrance we are restrained as to the controlling of its transformations. Chiropractors know, where it is deposited and, what and how it *mechanically* does these; but beyond the meager point of introduction, man has nothing further to do with it. In every likeness, between man and a factory, you will find, man ranks higher.

In the human body, its organs and tissues can have a similarity to machines and their component sections and are classified, arranged and placed according to their efficacy. Is not the same systematic manner issued in any well regulated factory?

Upon entering a manufacturing establishment we are directed to witness process No. 1—the making of castings in the foundry, and from there, this cast, goes to the filing machine; next to be bored; then shaped, drilled and planed, in the rough. It still needs further polishing and proceeds thru three stages of finishings, as regards the surface. Next it is transported to the turning lathe where the bearings are accurately turned; to the nickel plating and burnishing machines. From that time it is wrapped in tissue paper; boxed and ready for shipment or local sale.

Step by step we have observed the entrance of smelted ore to a commodity ready for use.

Each machine is so located that, as it finishes its work, it is passed to the next, which in position, is nearest to it. Each consecutive machine is so placed that it is next to where it is needed. The filing and nickel plating machines would not be found together. Collectively they pass from one to another so that each machine, as it progresses, from the rough to the finish, goes grade by grade.

The piece work, *mechanical* process, is highly developed in the Rock Island Arsenal small arms factory. At one room enters the rough, casted barrel until it leaves at the farther end, finished. The rough timber adits at another gallery and leaves as finished stocks for the polished rifled barrels. In the third locality all parts are assembled. One man affixes the rifle sight; carries it to the next; he does his little movement, thus the substances are passed. It is a pleasure indeed to start at one end of this immense building, on one floor, see the rough materials introduced and, by walking from one end to the other, thru three floors, see it leave, at last, boxed ready for shipment to wherever there are any of Uncle Sam's warriors..

Thruout this process of *unreflective mechanical* piece work, *where one action has no reflection*, ("reflex action") upon the preceding or the one to follow, you have the idea firmly impressed that *each man* and *his* process is a *unit unto himself*; what he does is done and once accomplished is not subject to be changed by the next man, for each is a specialist in the exemplification in that performance. Should the first man spoil a piece of timber it is *thrown out or passed on* to be utilized *as best it can* by the next process. It cannot be, subsequently, made perfect, because some one blundered over it when passing thru his instrumnts. Each process is complete, as far as it goes; the sum total being equivalent to the completed object. Factory work is unital piece work; in the human factory "sympathetic"—"by means unknown" is the explanation offered. He does not call nor ask for "sympathetic" assistance. This is but one inconsistency of the human intellect in trying to decipher the actions of Innate—*looking at them thru chemical glasses instead of assisting them thru mechanical movements*.

The human body is based upon both of these principles. *The chemical is the product of the mechanical.* Every movement, no matter where placed, is the performance of some *mechanical* action; therefore everything that is accomplished with material substances *must be based, primarily, upon the latter; the former being the product* in preference to the producer. How much greater and more valuable must be the study of *mechanical*, in its order, in preference to *chemical*? *The earlier and present day M. D. & D. O. study of the human system ought to be reversed.*

*The mechanical and its study, human or otherwise, is complete because it takes mechanical principles exemplified to make its product—chemical.* In consideration of the chemical we must *revert to the mechanical which made that combination. Mechanical can be studied alone* without the knowledge of what it *may* make. Chemical is the product of movements. All “movements” *are mechanical.* The chemical must be investigated, *in connection with mechanical,* to know what and how it was created.

It is a necessity to properly place and locate each organ, tissue and cell, according to its work; to best save time and material. If students would investigate *in a mechanical manner*, and lay bare the what, where, how and why of Innate in running this *model factory*, he could and would learn valuable pointers for his business, *regardless of what it is.* It would cause thinking and in a great measure, remodel his ideas now in use.

Let us briefly review physical systems and see how befittingly they will compare with that of the factory.

1. The Osteological plan is the frame work; the legs, supports; feet, the foundation; the thoracic walls are lateral restrictors to the future unity.

2. The Ariculating classification is, as it were, the glue or nails which fastens the joints of No. 1, only in the human factory, such allow movability of all parts, whereas, in the factory built by man, it is and must be stationary.

3. The respiratory method is the intake, which prepares, sifts, filters and heats the air. In this stage it passes to the pulmonary circulation; from whence the oxygen is transmitted to all tissues to assist in combustion—heat.



4. The arterial and venous circulatory scheme. The former is the conveyor of oxygen to and the latter of carbon dioxide from. They carry the combustible materials to and from the blasting machines (cells) of the heating system which keeps the factory warm. This system conveys oxygen, from lungs to each individual cell. The calorific brain impulse (spark) then sets the deposited gas, (8-9th of which is liquid) into action—the combustion is heat. After the explosion the gases are resorbed by the venous system, transported to lungs and expelled.

5. The Serous Circulatory order, including *all* glands in the body, is the circulating serous system which subjugates friction, maintains liquid and conveys nutriment to all parts. It is the lubricator of the system, and from being a liquid, keeps together, in a solid mass, all that which would be as so much dust.

6. The Urinary arrangement is the drainage to all that which is liquid.

7. The alimentary regularity of organs is the various machines which receive the rough materials and put it thru the manifold processes; thus preparing it for the finished function. It has a refuse system of solid substances. The liquid and solid sewerage orders must work hand in hand. The raw material enters at one end of this long tube, makes many successive, progressive steps, each having its particular action to perform until it sums to, 1st, that which is utilizable as nutritive materials and, 2nd, that which is waste materials, the shavings and scraps, as it were.

8. The muscular system is that series of belts, cogs, etc., which convey *mechanical* motions to the various organs; bodily machines and skeleton, allowing an external frame work locomotion which factory made objects, like automatons, sometimes do have *but minus intelligence*. Muscular movements allow this organic factory to be transferred from place to place, expressing and allowing vent to the intelligence which lies behind.

9. A generative classification. This is composed of those machines which, while they are an integral part of the factory, are not directly connected with its maintenance. It duplicates those parts of like machines that make up other factories; it is a process of where factory

(intelligence to deliverance, within itself) makes factory. This process might be elaborated to where every machine molds a certain kind of piece work. Each organical machine has one unital, *mechanical* function to perform. When a certain standard of quality has been reached and finished, it is *inwardly* transported to the next machine. The two halves, of this future machine, spermatazoon of the male and ovum of the female, of the two sexes, makes *our* future individual factory.

10. The sense system is that telephonic communication between every machine and its unit cells, in the factory, which connects it with each regional manager in the office. Every controller of that output, at his desk (brain lobe) in the general office (brain) is in contact with all kinds of work (function) in the factory (body) over which he has command and by millions of wires (nerves) *coming to* (centering) at his desk, he can at all times (night and day, from birth to death) know just what kind of work, as to quantity, speed and quality, it is turning out. Each sense nerve fibrilla is as an eye that sees only the action of that cell and immediately informs the Innate all about it. Senses are those interpretations at the mind which convey knowledge from the machine to headquarters; keeping the intelligence in constant contact.

11. Brain lobes are those sections which send forth brain force; which gives to each nerve fibre its brain impulse. The brain receives authority from Innate and but dolls out the necessities to nerves.

12. The brain is the general manager above all organs, superior to each machine and exceeding all; the creator of the offices and the supplier of *mechanically* trained officers to fill them (no political games or grafting are indulged in here) or, properly speaking, he is the director of the establishment. Behind him is the proprietor—Innate—who owns every stick in its makeup and the earth upon which it was grown and stands.

The human body is divisible into viscera, the latter segregated to its structural tissues. Every machine, of a factory, is composed of dozens or hundreds of atoms. For example, a Miehle Press or Linotype. Each is slightly different, or a great deal of resemblance, but everyone has its niche where it must fit. It acts as one cog and must

be in the best possible condition to deliver *perfect* work.

Each organ, in the body, is composed of various cells. Each tissue has individual characteristics; a special type of work to perform, and every cell must be in proper place and capable of putting into execution its model of action to have complete harmony thruout every detail. This chain can be reversed from cell to tissue; tissue to organ, organ to system of Viscera; and the complete systems of the latter to make one body; to have the complete unit which has the ability to start materials, in the rough, execute them step by step, to the finished product, the highest type of personification.

Suppose the finishing machines were "operated upon"—removed—the expert foreman would not take the rough product from the saw to the varnishing room and be turned out, as finished as in the past when each machine was present. Neither must the physician or Osteopath try and *compel* the human factory to run in perfect, if not better harmony with 1, 2, 3, or 4 organs minus; and if inharmony *still* exists *rip out some more*. What folly when applied to the factory; are not its *mechanical* principles as applicable to the human body? Is not such madness of every day occurrence with men ignorant of the first *mechanical* physical truth? The foreman would not dare to foster such nonsense, absurdities, or imbecility upon the proprietor of the factory. Why compel, by Medical or Osteopathic Practice Acts, people to put up with such in their homes; with the beloved wife, daughter or son? Would it not be sense, wisdom, sanity, and good judgment to *apply the same mechanical principles to one machine as is applicable with another?* Is it necessary to compel people to reason with good sense? No. *It is only the inconsistencies that must be foisted and heaped, upon the unwary, by compulsory means.* Demonstrate that which is practical and health *laws* (there are none yet), external to the human body, will be unknown.

Take for example, a sliding contact with oiled surfaces which are binding each other so closely that it is impossible to place oil between them. Thru some accident the superior surface has become slightly displaced and thus approximates upon each other so close that there is fric-

tion where formerly was freedom. Attrition produces too much heat. In short the machine will wobble from inability to run smoothly; sooner or later this excessive heat will "cut the metal" that is, wear it off in grooves or edges. Let us philosophize, M. D. fashion. "Continue to *try* and hypodermically and forcibly inject various oils, lubricants, etc., etc. For the excesssive heat we will apply something which will draw from it the surplus heat, pour on cold water, *aim to reduce the heat*, that exists." After an extended period of experienced guessing, "as a last resort" they will, after an extended consultation, offer to and do, (once, twice or thrice or as long as the affection still exists) remove portions of the superficial runners, or remove *all* of those parts that rub; then they *cannot* rub. The practical mechanic would have done away with these imprudences and have *adjusted* that superior or inferior portion, according to which was sub-luxated, to its right position. The report, from the machine to Innate, would *then* be "Tell the engineer to go ahead; put on steam; all is O. K." *Which is practical? Which determines results before the details of the abnormalities are known?*

Man is a machine builded around such principles. Why not reason with him as intelligently as with any other piece of ingenuity?

Suppose we have ten machines and one, by an operation, was removed. It was a necessity when everything was all right, but thru some accident that machine's function was made idle. The howl is over the damaged machine. Man would use good judgment and adjust that which made it idle, altho it may be in the center shaft ten feet away, to normal; as soon as this was done, harmony would again prevail.

In the human body we must expect as much or more for each has its machines *which no factory can reproduce*. Reason that if an external injury so smashes an organ, limb, etc., etc., that it cannot be replaced or expected to heal (which *occasionally* occurs) then it must be removed by surgery; but the majority of operations, today, are those where derangements are caused by some slight *internal, mechanical* disability; its location and what it is; its correction and how is unknown to "regular" practitioners; therefore, *for the want of better knowledge*, is removed;

an irreparable damage. That machine, of specific character, cannot be replaced. Life is taken that cannot be duplicated. Remove the indicted whether he was guilty or no. Kill the innocent for fear that they *might* commit murder. Remove the appendix, ovaries and womb for fear they *may* have future use and trouble the individual.

Do not take life that cannot be replaced, unless the circumstances compel it. Ninety-nine per cent of deaths, by operations, today, are human butchery. The person who performs these acts is more guilty of murder than he who commits a deed for justifiable cause.

But, if thru some accident, *man* falls; produces subluxation, followed by pressures upon nerves at intervertebral foramina, shutting off the transmission of *brain* power, which has its train of symptoms that varies in each case, the disease thus represents the degree and kind of *mechanical* functions that are idle.

Why not use as good sense here as in the factory? *They*, on the reverse, *take it out*, and leave the body minus. You cannot do this in a factory, why attempt it in man? Suppose a pulley becomes bent; the line shaft twisted; one or more of its boxings are slightly awry and produces friction; power is slackened and you have a hot-box. What is to be done? A *mechanic* (and by this I mean, *physicians are not*) *would adjust what was wrong*. The physician *treats the diseased chemical product with chemical compounds and applications* of endless quantities and various qualities; *the surgeon removes the chemically affected area* expecting better harmony to exist. Such folly is incomprehensible to a factory proprietor. Is not the body the best machine yet invented, conceived or patented? It is founded upon *all* the mechanical principles that *are* known and many that *are unknown*. Many mechanical movements, executed in the human body, if man could but decipher and use them, would make him many times the world's wisest sage.

Must it not be accepted as reasonable, if an arm is broken, that Innate, having unbroken connection, between source of power and internal physical divisions will run the machine properly? Is it unreasonable to propose the *mechanical* proposition that a broken energy connection would but express itself in the *mechanical* idleness of

an organ? Should we not speak of a machine in *mechanical* quantitative terms, to convey such ideas? Is it insane or unintelligent to believe that a machine ought to be put to rights in preference to giving to that divisional atom-organ, in the human or factory, a dose or treatment to the effects and if good results are not manifest, *cut it out?*

Suppose every machine has its *mechanical* function and every part of it is in exactly its normal place and its connection still be with Innate, consequently the transmission of Innate brain power is unceasing, we must conclude that positive action *must* follow plus normal quantity of power. It has direct connection with every head office. Every machine now is perfect; there can be nothing wrong, for each works as it ought to, in accordance with the lines as it was built to do. A healthy factory is the result.

In the human body, with the Intelligence-Innate; general manager; his brain system of nerves; the viscera as the machines and skeleton as the frame work; sense system for intercommunications, must we not deduct that if every structural bone is in its proper place; all power unrestricted; can that machine be otherwise than exactly normal?

Vertebral subluxations are common occurrences; hindering the quantity and quality of brain power; the muscles become inactive; they cease to act; the stomach is unable to digest food; there is partial or entire lack of motion at a specific locality. If that be the case, what is the result—inco-ordination; inharmony between mental and physical. If the functional machine cannot work, *the Chiropactor's mechanically trained brain* should observe and *palpate for abnormal mechanical principles; find the mechanical reason—why?* The concentration should be on *mechanical cause, not chemical effects*. It ran all right yesterday, *why* not now? If your present knowledge be so meager as to not fit the case; your every hour and day of study should be conducted along and *in accordance with the mechanical principles incorporated in this enterprise*; if none of the known ones fit, *study Innate* and *how she* performs the creation so that you can work in and with her conceptions of her handiwork.

Instead of looking *within the machine* for its troubles,

the M. D. and, I am sorry to say, the D. O.s are retrograding, to look *outside* "to see *how much; what kind; how does it look under the microscope; what are its chemical properties and affinities and to what family or specie does the microbe belong,*" he can lay to external circumstances. *The Chiropractor finds the cause of every disease as one or more mechanical principles that are obviously wrong,* therefore he investigates the machine *itself*, studies *its* every possible place where there is a possibility of interference, where a hard is interposing with the soft, finding *what is wrong with the mechanical interfering with the chemical.* Anything external to that is but the effects acting upon what was previously wrong.

That is why a person trained and drilled to believe that excesses or lack of certain chemicals are *the cause* of disease is a harder and, as a rule, slower student to grasp Chiropractic. He reiterates past teachings. The mechanic, on the reverse, progresses fast because Chiropractic is in accordance with his *practical, result giving* experiences. He was compelled to adjust causes, for if he *could not* somebody else would. To study Chiropractic means to lay aside past conceptions. They are wrongly placed and cannot work hand in hand, to one who thoroly conceives this scientific study.

Each body is a movable factory unto itself. If you give what is needed, fuel and water, the superior powers that be and always have been, will keep it to the highest pinnacle; it then can make its existence a reality.

The human mechanism must be kept adjusted. To perfect time the watch must be exquisitely adjusted. Every wheel, cog, bearing and jewel must be *mechanically* perfect, for any defect, trouble or friction anywhere will make absolutely correct time impossible. The human machinery is infinitely more delicate than the mechanism of the finest chronometer and it needs regulating, needs to be put in perfect tune, adjusted to a nicety every morning before it starts on the day's run, just as a violin must be adjusted for playing a tune.

It is strange that men, who are very shrewd in other matters, should be so shortsighted, so ignorant, so utterly foolish in regard to the importance of keeping their marvelous, intricate and delicate physical machinery every



day in perfect adjustment; for inharmony means inefficiency, lack of power. Many a business man drags himself wearily through a discordant day and finds himself completely exhausted at night, who would have accomplished a great deal more, with infinitely less effort, and have gone home in a much fresher condition if he had taken time to have his vertebrae tuned before going to his office.

The man who goes to his work in the morning feeling out of sorts with everybody, is in an antagonistic attitude of mind toward life, especially toward those with whom he has to deal, is in no condition to bring the maximum of his power to his task. A large percentage of his mental forces will not be available.

When will he learn that it is not the number of hours we work, but the efficiency or spirit that is placed into it that counts? Many of us would accomplish much more in two or three hours of vigorous, effective work, when the mind is fresh and resourceful, than we could accomplish in an entire day with the system run down. It is the worst possible kind of economy to try and force good work out of a discordant instrument—machine out of order—a jaded or unable physique.

Forcing the physical to work when it is out of plumb is a very shortsighted policy. It takes too much out of the human instrument. Multitudes commit suicide on many years of their lives by not keeping themselves properly adjusted.

The origin of the word *disease* was *not—ease*; lack of being comfortable, uneasy, restless, that ability of being physically not sane. This in a factory may be one of a thousand characters. Perhaps there is uneasy mental faculties or uncomfortableness in the stomach, spleen, bladder, lungs, or bowels, etc. The uneasiness might be in the foot or hands. *The combination of where, what and how disease* and its symptoms is *always* indefinite. This is readily observed by the variance of opinions of many reputable physicians in disagreeing as to *what* to name them. If they debate in *diagnosing the chemical disease*; which is the outward conditions, the symptoms, effects, that which the patient feels or sees; what must be their position as regards to its *internal cause*?

Quite frequently M. D.s or D. O.s are very uncertain as to whether it is this or that; cannot definitely locate it; they are at sea until *the chemical* constituents of the *disease* has developed more prominently; he must know what *that* is before he can begin treatment. The Chiropractor has the superior ability of *exactly* locating *the cause*, *regardless of the combinations of symptoms that may be close or spread*; in the acute or chronic stages. The endless combinations of chemicals can be twisted, hatched and developed between the 7 or more primary functions without end and can, on the whole, be interpreted according to the whims and fancies of the person studying them. It is a problem that thousands of lives have been lost for "*What was the disease?*" and yet they are no wiser as to *cause*, today, than then.

They know, as experts, what *chemical disease* is and how to, *chemically*, name and *treat* it, but their ability in trying to supply *from the out to inside*, that which cannot be manufactured, by *chemical* means—proves that they have not reached rock bottom—*the mechanical cause*. Does their scientific *chemical* ability, to guess at proportions—lacking and needed—the endless quantity upon their craniums, prove that this knowledge has reached deductive facts, sufficient to remain stable? If *so where is it?* Observe the past 300 years.

Chiropractors are not educated to study *disease*, its symptoms and then name them. If their education had been chemically based as his precedents, there is slight question but that they would have followed the same ruts. Its earliest teacher, twelve years ago, knew but little of what disease was; his study was devoted to propagate *mechanical causes* of this and the other combinations of abnormal *mechanical proportions* which the M. D.'s and D. O.s had, *chemically*, down pat. Instead of progressing *into the fundamental* of this universe—*mechanics*—they have been working *upon the products*—*chemicals*—the knowledge of disease and its *chemical* proportions. Chiropractors are leaving behind them all chemical studies; all that pertains to working with effects; but they are progressing upon the philosophical study of the human body as a mechanical machine, in connection with his Innate. He is simplifying those conditions under direct heads and

locating—*specifically and mechanically—the cause of each.*

When your teachers found a certain amalgamation of symptoms existing they didn't call or name them. *Their* idea was "what is wrong *mechanically?*" By keeping that and Innate before them *they solved the problem of the most complexed machine.* Chiropractic, *mechanically speaking,* is therefore "*The science of (mechanical) cause of disease and art of adjusting (mechanically), by hand,* all sub-luxations of the three hundred articulations of the human skeletal frame, more especially the 52 (mechanical) articulations of the spinal column, for the purpose of freeing impinged nerves as they emanate thru the intervertebral foramina, causing abnormal (mechanical principles)—named functions, in excess or not enough—disease. (*Science of Chiropractic, Vol I.*) Chiropractic is not a knowledge of *what disease is, but what caused it.* This leads us back to this lecture's text—"Disease, What it is and Its Cause?" which is answered "What disease is we care little, *what its cause is and the art of correcting that* is our lifework study.

The M. D.s have sacrificed endless quantities of money, millions of lives and brains for the study of *chemical disease.* The Chiropractor has yet to lose one patient in his study of *mechanical cause* as a result of his mistakes and spend one dollar other than to educate the public out of *treating, chemical superstition into mechanical, adjusting intelligence.*

Urine can be analyzed, its quantities and qualities of each, that are running from the machine, can be deciphered. How does that *chemical* knowledge, which required *months* to learn, *adjust* the wrongly acting *mechanical* principle? Again "billiousness" might be considered; it may also be given a *chemical* scrutiny, but when finished *what have we?* Nothing that is essential or of value as to *what caused or can adjust that condition.*

In the study of causes then, it is necessary to reach cement foundation of this machine. In factory, as well as body, we must study the methods of transporting power from the place made to where expressed. Expressed power must be considered. We need to investigate (*every step upon a mechanical basis*) the *mechanical* product of that

machine, its normal *mechanical* action; *when this we have, abnormal becomes readily apparent, just how or in what proportion the effects are, becomes an item of side issue.* As to just how far, we as Chiropractors, wish to labor upon what kind of a *chemical* diseased condition is in the machine depends upon how much time we desire to waste or toady to the present day superstitious sympathetic reflex action, that has been forced into our brains, whether we will or no. To cater to the present day whims is but to deceive yourself and patient from that which is the truth. To be caught doing such practices, the Chiropractor is as guilty as he who does believe it. It is easier to reiterate than to teach *new thots*.

A Chiropractor, with the knowledge of Innate; power that she makes; thru what and how such is carried; the kinds of machinery that expresses it; what kinds of cells are necessary to make a certain pattern of action; *how* that machine carries on its work and what its products are and the *mechanical* principles involved from conception to action and birth to death, is intelligent and a *study that appeals* to every person *who wishes facts that are incontestable.* The instability of medical *chemical* principles are daily shown in every patient they have. They get better, worse, live or die, but *never get well.* How *can* they with a *mechanical* cause still existing; its entity being unknown to the attending *chemical* doctor; therefore the machine, slightly better or worse, continues to exist unadjusted.

Briefly—Disease is the *partial* interruption of *mechanical* power from Innate to organs. Death is the *complete* dissolution or idleness between the source of power and its expression. Health is the normal *mechanical* expression, thruout all machines of the human system, of impressions and their equal interpretation, the mechanical conception and expression, co-ordination between Innate (the mechanical power maker) and Physical (the mechanical expressor.)

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## THE ALIMENTARY TRACT.

The specific, pure, unadulterated, philosophical Chiropractor *analyzes* all that he comes in contact with. I shall, tonight, carry the alimentary or digestive apparatus, or what other name you may see fit to call it, through this partition process, which is the reduction of organs, tissues, functions, etc., to their component relations.

The alimentary tube is that hollow concavity from the inside of the lips, of the mouth, to the external lips of the anus. Anything in between is a portion of it. Start with the mouth or buccal cavity, the next is the oesophagus; third, pharynx; fourth, stomach. Next the small intestines and following that the large bowels. There are, at basis, six "primary" viscera. In addition, there are "Accessory" viscera (why so termed, with this misnomer, I do not know). "Accessory" conveys the thought that it is something which are occasionally used but is not essential; are similar to ornaments; can be dispensed with. The "accessory" viscera, are as necessary, in the performance of the functions of these glands, as are the original organs. The essential glands are seven, viz:—teeth, parotid, submaxillary, sublingual, liver, pancreas, and spleen. The alimentary tract *alone* is not sufficient to bear or express all functions necessary. One cannot maintain itself without the other, nor the other without the one.

One more, which is not enumerated by any anatomist, must be added—Serous Circulation. Without the latter the buccal cavity would be dry, the oesophagus parched, or would cease to be pliable, the stomach would be as so much dust; the small intestine and large bowel could not act nor perform functions; neither one of the glands, enumerated, would be a gland in function, altho such in structure, were it not for the Serous Circulation which keeps them united together. Serous connective tissue gives to all glands its juices which are soon converted to the oil for which that gland is noted. It is the liquifier; that which holds dry substances together in wet form.

I have enumerated some six primary organs and seven *necessary* glands and now connect these by the only means possible, an oversight for hundreds of years—serous circulation.

Specification of elementary tissues of which any one of these are composed is our next step. They are seven in number: (for future reference they will be spoken of as "A") first, muscular; second, serous; third, lymphatic; fourth, adipose; fifth, arteries; sixth, veins; and seventh, nerves.

Take the stomach as an example. It has more or less of each of the seven tissues. You may carry the same comparison forth with any organ or gland of this tract.

So far, analyses has brot forth the viscera, and tissues of each. Investigation proves that these tissues have the following functions: (to be known as "B") first, motor; second, trophic; third, calorific; fourth, secretory; fifth, excretory; sixth, reparatory; and seventh, circulatory.

You will notice that this list is headed with "motor." Every function expressed is motor in some character. You cannot enumerate any expression, of a function, but what its fundamental is some mechanical action. Movement is motion and this is motor brain impulses expressed. Motor is subdivided into many classes and each is named according to what character it maintains.

Examine the first tissue of "A"—muscular—it is composed of fibres. Muscular fibres must have motion; nutritive impulses; heat; secretion to and excretion from, circulatory impulses and should that muscle, in part or whole be strained or fractured, as sometimes occurs (which is nicely illustrated in *The P. S. C. Osteological Studio*), it needs reparatory, as each fibre is a section and each cell of a fibre is a living unit. Nerves must have the capability of being moved; they have nutritive sustenance to be maintained; must have heat, secretion and excretion; and you question "Has it a reparatory?" A *P. S. C.* clinical patient, recently gave an interesting account of tic-douloureux, in which two inches of the middle branch of the tri-facial nerve was removed by an operation. For a time the patient suffered no pain, but after a few days, was tormented with all the agonies that he formerly had, but he noticed, between times, characteristic knitting pains, that are found when fractured bones are healing. Having experienced fractures, he knew. Instances are rare, but the annals

of surgery portray that nerves do repair and heal when cut.

Function has been outlined—that which comes from *inside outward*. Reverse it—what comes from *outside inward*? The senses—(to be known as “C”) of the alimentary tract, are two, one in taste, noticeable only in the buccal chamber; second is tactile impressions. Through these the Innate brain is in contact, all the time, with what is taking place in any of the organs or their structures. Through these two nervous systems are received impressions, from the external world, thus Innate has a means of knowing just what is taking place.

Through what conveyors are impulses and impressions transmitted? For “B” *efferent* nerves; “C” *afferent*. Step by step analyze and see if this is correct. Prove and see if it is reasonable and conclusive. “B”—the function externally expressed—is carried through *efferent* (going *from* a center) nerves. The impression (which become sensations) “C” are transported by *afferent* (going *to* a center) nerves. *Starting points*, in this separation, are for “B”, the brain. “C” starts impressions at tissues. Where are the *ending points*? Quite the opposite. For “C” would be the brain. For “B”, tissues.

So far the segregation has shown organs; structures of each; functions, senses and conveyors of both, the starting and ending points of each.

What are the mediums between? What is betwixt the origin of impulse generation and its point of expression. Function is that which the substance does, and must be performed through something. The intermediates of “B” would be any of tissues “A”. For “C” would be right the reverse, the tissues being the brain substance proper.

A brief allusion to the *paths*, that are necessary, from starting to ending point or vice versa, would be interesting. In “B”—function—its point of origination is from each characteristic brain lobe (each type having its special division), from the skull, emitting at foramen magnum, passing downward thru the spinal cord; various intervertebral foramina; efferent nerves; branching at various places and degrees, according to the locality involved.

In confining investigation to the buccal orifice the emitting of fibres would be at S. P. on *right side*. The same



is good for the oesophagus and pharynx. Upon the *left* of the same vertebra for the stomach nerves. The division for the small intestines takes place at U. P. P.; for the larger bowel, to lower or middle P. P. The segregation for the nerves that go to the teeth takes place at fourth cervical the glands of and the throat S. P.; the liver, Li. P.; pancreas, Li. P. on opposite side. At those points will be found fibres leaving the spinal column of their "paths" to its respective residences.

Starting at point of the organ, a Chiropractor must follow "C" into the brain and see clearly the exact path that impression would follow before reaching the interpretation of sensation. Its point of beginning is at tactile corpuscles in tissues of any organ, "accessory" or otherwise, thru afferent nerves passing inward thru various intervertebral foramina, ending at a specific brain lobe which has that Innate ability to incorporate, impress or receive it. Concentrated investigation will elucidate the "paths;" if studied they are simple.

A few days ago, in our lessons, we touched upon the mechanical action of the alimentary canal. Not only does *The P. S. C.*, in its teachings, analyze man, but, also everything that he makes and leads both back to first principle. The comparison would be as follows:

1. Functions. ————— Equal to
  1. Purpose of machinery.
2. Mechanical action ——— Equal to
  2. Action of machinery.
3. Nerves ————— Equal to
  3. Action of machinery.
3. Nerves ————— Equal to
  3. Pipes.
4. Brain impulse ————— Equal to
  4. Steam or electricity.
5. Brain ————— Equal to
  5. Substances (coal and water.)
6. Innate ————— Equal to
  6. Man.
7. God ————— Equal to
  7. God.

The last named parsonage has emanations—Innates—similar to the sun's rays—emanations of that solar body

—these are capable of utilizing forces to make brains; the latter converts external forces to brain impulses—internal power and are transmitted through nerves. Expression in muscles equals mechanical action, this is function, and thus we live as a complete unit deducted, step by step from the original starting point.

Why not put thru the same process what man does? As an opposite to function, (1st.) No piece of machinery is made but what has a purpose. Functions are mechanical actions; expressed *purpose* of that mechanism. As the same to Mechanical action, (2nd) action of machinery. Uniform to nerves is (3) pipes or wires which convey steam or electric power. As commensurate to impulse (4) steam or electricity. Similar to brain (5) substances, coal or water. Equipollent to Innate (6th) man, and God is first principle in either. You have analyzed man and what he does. Obliterate him and what is left?

*The P. S. C.* explains that Innate is in *each* being, next to which is the brain, this makes impulse, which passes through nerves and makes *mechanical* action, this movement is function. This stage is where man, with function, substance, or electricity, that is conveyed thru pipes or wires, makes action of machinery; it expresses the purpose of the machine. You have reached, at fundamental, the basis of everything. From that can be elaborated all that Man's function has or may create. It is giving to man a unity that never existed before the advent of chiropractic. No man ever linked the brain with the physical, thru a direct nerve system and gave to the brain the power of transforming or converting; of giving God the opportunity to express its quantities through man in that form of manner. It is not my purpose to express any opinion as regards religion, but we must take Life, step by step and show its bases, as it is. No matter what opinions each may have, it must have one basic truth. The alimentary canal, *alone*, is but a set of dead organs, but when analyzed through each successive step, and given an Innate, we have the physical canal philosophically complete.

As far as the medical man, in his studies or practice, is concerned, he goes no further than the physical organs. If indigestion or any disease of the stomach appears he figures "What material *chemical* can I give this person

which will counteract that *chemical* poison which he has in excess in the stomach, the effects of which are named dyspepsia? I will try this, and if it fails, will strive with something else, and I will continue these attempts until the patient dies or leaves me disgusted." But meanwhile, the patient has a chronic stomach trouble. In a disease of the liver, the M. D.s. and D. O's. first and only aim is to chemically diagnose what condition the liver is in. "If it lacks a certain chemical of this and has an excess of that, if I give so and so I can neutralize it." He tries to fathom its chemical affinity and it does not nor will not permanently, give the desired result, or may merely do it for awhile, or if it is going too high, he will endeavor to hold it down, but never is able to restore it to normal function. The product—chronic liver trouble.

For instance, throat trouble, character—pharyngitis. He is able to give the patient something which will cool the throat. If it is not acting fast enough, he will give something which stimulates its movements, but the patient has and will have chronic throat trouble. It may start as pharyngitis and finish into catarrh of that region after his treatment, the latter being the chronic condition of the former acute. The patient is no better than at first. They feel better at times, I admit, but what we must determine by is *permanent results*. He thinks of nothing further than the pharynx as a *physical* organ, the stomach has *physical* purposes, the liver has a chemical action, to be dealt with by like methods; *never gets any further*. He is a physical and chemical fanatic. The Christian Scientist is the opposite type. He or she maintains that "Mind is all in all; it runs the body. Mental rules all, everything must exist in this form before it can be expressed in physical, therefore if that (the mental) is perfect the rest must be" is the line of justifiable argument used. "When *you* have stomach trouble *you* should concentrate your mind and *you* must study to know *how* to tell *your* mind how to run the stomach. If *you* are insane cannot think sanely; concentrate *your* (insane) mind upon *how* to think as you ought to." "The fact that *you* are insane and cannot think properly is no hindrance;" for if *you* cannot think we will have friends to do it for you; "and so the mental theorist pursues *his* path. *You*

must think that *you* have no stomach, are sane and it is "*the mental* that is in error, *it* is making mistakes, is insane and singing. What *you* must do is to eradicate the mental sin by concentration, then you will eradicate *all disease.*" The Drs. are sincere in their belief; the patient tries it but the stomach and liver trouble becomes chronic just the same.

Chiropractic is the first science that harmonizes the two. We maintain just as steadily, as the Christian Scientist, that all is mental first, *but it must be physically interpreted*, it must show its expression *in the body*, and have a definite path and a precise something to send through that which performs mental thoughts. Chiropractors, step by step, analyze the existence from God to physical function. We are not fanatic upon the mental aspect, nor are we clinging, alone, to the physical, ignoring everything else. Remember that, in and all around us, all the time, is this intelligent power or force, that this is the individuality, who places power in contact with physical, and our mental mind, thru brain, receives and places it through a transformation—brain impulse. The latter is God personified in you and I. Brain impulse is unseen and unfelt in itself, cannot be sensed in any form, yet it is the exemplification of all that is pure, holy and righteous. It must have expression through a physical medium, which is our body. It has reached the form of impulse and while still power, internally manifested, it passes through nerves and from them causes action in muscles, which is mechanical action. This function, the outward expression, should be, if normal, a counterpart of the original principle. Man cannot assist nor give advice to Innate, therefore Christian Science is wrong; at base the M. D. is one-sided because either or both hold fast to only *one-half of the unit*. That is why Chiropractic is the only *philosophical study*; *it unites the two, makes of it a completeness*. I know of nothing which is so *definite in conclusions* and briefly given as the diagram upon the board.

I was amused in reading over a book the other day which went at quite a length to explain that all function was enervation, and what "enervation" was he didn't state. Enervation is "nervous force" but further than that; where it was generated, came from or what it was,

were questions left unanswered. Osteopathic books are written the same way. They speak of a certain muscle being enervated by the "vagus nerve." The more I study their works, the more I know that "enervation" is as "vague" to them as a "vagus nerve" is to a Chiropractor.

Mechanically speaking "the alimentary regularity of organs s the various machines which receives the rough materials and put it thru the manifold processes; thus preparing it for the finished function. It has a refuse system of solid substances. The liquid and solid sewerage orders must work hand in hand. The raw material enters at one end of this long tube, makes many successive, progressive steps, each having its particular acton to perform until it sums, to first, that which is utilizable as nutritive materials and, 2nd, that which is waste materials, the shavings and scraps, as it were.

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## THE URINARY SYSTEM.

According to Chiropractic, the Urinary System makes one step further than has been conceded. There are two kidneys, one on either side, from which runs its ureter; these join inferiorly and anteriorly at the bladder. From the latter organ is the urethra and—external world.

The kidneys are, according to medical parlance, organs that secrete urine and expel it from the body. What the urine is, where it comes from or starts, we are left to guess. A Chiropractor will maintain that the kidneys is that ending point of serous circulation which starts water, after mixing with saliva and other glandular juices, at the intestine, making of that serum, the kidneys secreting urea, that which has been used as a lubricator and food thruout the body, and converts it to urine and then thru the ureters to the reservoir and, when full, thru the urethra to the external world. This is speaking of *how* it is done minus *what* does it. To reply that action performs, leads us to "What is action, and how is it made?" That deficiency is Innate.

Let us study the various *transitions* thru which these changes occur. In sub-dividing the orinary system it is found composed of elemental tissues. First, the muscular; second, is serous; (sub-divided to connective and mucous) third, lymphatic; fourth, adipose; fifth, arteries; sixth, veins; (each of the two latter having their ample anastomoses) seven, nerves.

Consider the *functions* performed in these seven fundamental structures. First motor—action; second, nutritive—that type of motor which is trophic in character; third, calorific—producing heat; fourth, secretory; fifth, excretory, which is, especially in the kidneys, highly developed and in point of relative values stands highest in these organs; sixth, reparatory—should there be hernia, prolapsis of the kidney, or a dis-eased condition—there must be reparatory impulses to repair that to normal; seventh, circulatory.

We have seven basic substances and an equal number of functions performed in them. In addition to these let us meditate upon the *senses* which are necessary in completing the circuit. Do the kidneys taste, smell, hear, see

or feel? They do *sense*, but by a process of Innate *voluntary* afferent nervous system. Therefore we shall put down one sense—tactile impressions.

We have considered tissues, functions and senses. Our next regard is for the *conveyors*; that which transmits functions and senses. To help the elucidation I give to functions the letter "A" and to senses "B," investigating both accordingly. "A" the outward manifestation of life—passes thru *efferent* nerves—out, going from the inside outward; for "B" we shall place its opposite, *afferent* nerves, that which proceeds from the external, inward.

We have, so far, observed tissues, the basis of known physical life; functions; senses; then the conveyors of these. The next step will be one of *origins*. "A" is at brain; "B" tissues. Its ending points are: "A" at tissues and "B," brain—reversing the former. Showing that we have definite starting and ending points for each.

So far the unit is incomplete as we have no *intermediates*—that thru which these are expressed. "A" in tissues, one to seven. "B," intermediate, would be in the brain. We have summed, briefly, a definite, specific starting and ending point of the entire urinary tract.

We have so far linked the external tissues, of this system, with those of the brain and vice versa. Giving to the urinary tract a philosophical aspect not studied nor taught by any other science. One step further—*The P. S. C.* is the only school of Chiropractic that considers each study in this light. Those who have bought other books on the subject fail to find anything to the contrary. I fail to find "Innate" (that which is *the* basic of Chiropractic) mentioned, described or elaborated upon in any other work—it is ignored.

We have tissues—functions performed in them—the senses thru which Innate is aware what functions are doing and how they are accomplishing it, the ways and means of conveyors of functions and impressions, the starting and ending points of these and their intermediates, which act as expressors of and as interpreters there to.

The next step in this progressive analyses must be the complete *path* of each. The origin of each "A" would be from a characteristic brain lobe, thru foramin magnum,



spinal cord, passing outward thru intervertebral foramina (K. P. to kidneys and P. P. for ureters, bladder and urethra) on either side is inserted into and expressed at ending plates in kidneys, ureters, bladder and urethra, and at that point they express that characteristic impulse which is given to it at brain. For "B"—tactile impressions—would start at the urethra, bladder, ureters or kidneys, proceed into and thru nerves passing inward between that movable space known as intervertebral foramina (K. P. for kidneys or P. P. for bladder or urethra)—the impression carrying fibres passing either one above or below its motor mate) entering and passing inward thru its spinal cord fibres proceeding upward thru foramin magnum and ending at specific brain lobe cells.

You now have a conception of the urinary system which has never been placed before an audience. Let us consider briefly, the diseases; excess or lack of normal function; of the urinary system. The function of the kidneys is to suck, into them, the urea from serous circulation, converting it chemically to urine. Its drops gather in the infundibuliform until filled when it contracts, expelling the liquid contents into the ureter and then to the reservoir in the bladder. If the kidneys work in excess, the general body becomes dry, epidermis harsh, scaly eruptions of many kinds appear on the skin. If the kidneys are working under normal, we have excess of urea in the body and the result may be dropsy or serodoema. The chemical action of the kidneys is to transform urea to urine. If this be working in excess—an excess of chemical solids—too much of sugar in the urine. If there is lack of it, here or there, thruout this tract, then certain chemical properties are minus. To test out these abnormalities by any one of a dozen methods of urinalysis is but to analyze an abnormal product—treat effects—without knowing or trying to ascertain where and what the cause of such is.

If a certain kidney chemical acts in excess it settles in the infundibuliform and under the fusion of heat forms renal stones, which may experience considerable trouble in passing thru the ureters.

Excessive heat might (due to expansion of tissues)

close the ureteral orifice—stricture—thus creating trouble with the passage of urine.

The bladder, is a reservoir to hold the urine as fast as gathered. If the muscular fibres act normally, they will maintain a 100 percent of tonicity and hold the urine until full—then it is voided. If this action be in excess, as soon as a little urine gathers it is expelled—the result—micturition. The reverse can be possible also. The bladder may retain the urine—laying in the pelvis like a small balloon and great pain will be felt, severe pain and other symptoms be met with.

The function of the urethra may pass thru the abnormal stages as enumerated for the ureter. Any one of the seven could be excessive or a lack of them in these organs. There might be too much motor; again, not enough; too much nutrition deposited at a certain point without being utilized, the result—tumor which might be internal or outward, or in the canal. The most notable difference in the two tubes would be that in the former it passes renal stones—the latter—bladder stones.

The third function—calorific—may be in excess of—too much heat, or not enough. Each function, in turn, could be followed in the same manner. This is noticeable in floating kidney where surgery is oftentimes needlessly resorted to. Its supporting tissues relax, dropping it into the pelvis—the physician removes a portion of this relaxed tissue, draws the remaining edges and sews them together. It is but a short time before, what is left of this tissue, again drops and a second operation becomes a necessity.

This lecture has given you a more comprehensive idea of how each tissue, organ or system can be enlarged upon; its points of receiving that power which moves all its expression commonly termed function. The study of the human body, when thus sub-divided and its superior force Innate, studied side by side, is most interesting.

Next Wednesday evening's lecture will elaborate upon the Alimentary Tract in involving one step superior to this.

## CIRCULATIONS, SEROUS AND BLOOD.

Serous Circulation is an original theme. My aim is to present these thots in as thoro and interesting a manner as possible. Undoubtedly *your* dog is petted more, for he represents your personal labors. This dogma is mine. As its discoverer and developer, I have greater interest in its propagation. Fundamentally, there is no one function so absolutely necessary to the maintainance of life as the serous circulation. The more it is studied the greater is the interest. That it has never been conceived before is no fault of mine and is one great evidence of its truth, for predecessors have been working effects, *not foundation principles*.

Contrary to many ideas, which eventually became great, this discovery was not accidental but the outcome of months of study to answer "why?" for abnormal symptoms yet unsolved. The arguments to be used against this principle will be "If it has existed *why* (a question they have not answered on many other subjects, let alone this) did not the M. D's know it? It cannot be so, or they would be teaching it." *Experience* has proven, not alone to *The P. S. C.* but all liberal schools, that *medical* knowledge (?) is contrary to *natural* reasoning. The stronger opposition, from that quarter, is the more potent evidence of its exactness.

Upset medical knowledge and you have the truth. When they say "you have caught a cold," reverse it with "The cold has caught you," or "I will give you something to move the bowels" with "The bowels have increased their action to get rid of the intruder." When an M. D. maintains "The knife cut the finger," invert it to "The finger came in contact with the knife."

A mere handful of mentalities, who *dare* to think, have opened a large cave in which are many uncut, priceless jewels. It costs money to work any mine and as capital permits, shafts and "runs" will be made deeper and show larger and more brilliant gems for study.

In lecture 1 the conclusion was reached that the embryo was a multiplicity of germs matured to cells. Tonight, the subject has to do with that substance which *does* the expanding. The germinal structure of a cell in minute depleted form becomes enlarged.

*"The typical organic cell consists from without inward of cell membrane protoplasmic contents, nucleus and nuceolus. Whether the cell membrane is anything more than the wall, or outer surface of the protoplasm, is open to further investigation. The composition of the protoplasm (the fluidic contents of the cell) varies with the age of the cell. At first it consists of a homogeneous albuminoid (resembling albumen, like the white of an egg); but later there appear granulations, coloring, or fatty matter, and the whole may become hardened into horn, or bone. The nucleus (kernel) examined with the microscope presents the appearance of a sphere, the contents of which are more or less liquid and transparent."* Dutton in Dutton's Anatomy.

Look to that which expands everything and water, in one form or another, will be the result. No substance can be taken, but what, if placed in water, will expand. For instance, the sponge, bean, wood or corn. The hyacinth as a bulb represents little until placed into water and then the transformation into a beautiful odiferous flower takes place. Place a grain of corn in the ground, as long as the earth remains dry it cannot expand or mature. The early coming of a shower after a dry siege or drought is welcomed by the tillers of the soil. Why? Because he, knowingly, recognizes one of the greatest fundamental principles which the most expert physicians have ignored. Can you blame the latter for trying to defeat this attempt to show them their long unknown mistakes?

Applied Chiropractic knowledge proves that water, invarious consistencies, is indispensable to expand germinal cells. In the clinic, a few days ago, the symptoms of case number seventeen were traced, one by one, combined with the history, which proved that the physiological difficulty was an absence, in large per cent, of certain general liquids. A Sherlock Holmes analysis was applied, the details brought forth, deductions were decisive for a circulation of liquid substances, *other than blood*. The latter theories did, could nor would not fit the given symptoms of this case, which is but a sample of what is daily brot before your attention. Heretofore medicine and osteopathy have claimed that blood was the necessary conveyor. They haven't made one step forward in principle,

since Harvey's time, outside of creating theories and retracting them when proven fallible.

Considering that blood has been the *supposed* foundation of life; "the rule of the artery was supreme," they naturally gave to this continuous, bloody circulation, the spreading out or propagating of (1) serum, (2) nutrition, (3) heat, (4) repairing, conveyor of (5) "life". Everything, good, bad or indifferent has been heaped at the doors of this "Ship of State."

The Serous Circulation can be briefly mapped as follows:

*Transforming Apparatus.* (Process No. 1.) Those viscera which convert water and food to serum.

*Serous Apparatus.* (Process No. 2.) Those serous or connective structures which receive serum from small intestines and convey it to the glands or tissues which utilize it in process No. 3.

*Ureaic Apparatus.* (Process No. 3) The tissues that transmit exuded fluids after process No. 2 from glands and tissues (the intermediates) in its onward progression to process No. 4.

*Reninogen Apparatus.* (Process No. 4.) The suprarenal capsules or glands which create of the incoming urea, reninogen, passing it thru the necessary transformations to create this, thence conducting it to the kidneys thru well defined ducts and expels forward to process No. 5.

*Urinary Apparatus.* (Process No. 5.) Those organs, Kidneys, Ureters, Bladder and Urethra which convert urea to urine and convey the latter externally after it has passed process No. 5.

All liquids under normal conditions enter the mouth. The epidermis absorbs a *very small* percentage even if remaining some time in a bath. If immersed in an *ice-cold* bath, the pores would close like so many gates. If a *turkish* or other *hot* bath, the perspiration is *from the inside outward*. Either condition being sufficient to make the intake extremely limited. There is, from practical deductions, nothing taken in by the epidermis.

"Kidney Diseases.—*The relation of the secretion of the skin to that of the kidneys is a very close one. Thus copious secretions of urine, or watery evacuations from*

*the alimentary canal, coincide with dryness of the skin; abundant perspiration and scanty urine generally go together. In the condition known as ureamia, when the kidneys secrete little or no urine, the percentage of urea rises in the sweat; the sputum and the saliva also contain urea under those circumstances. .In some of these cases the skin secretes so abundantly that when the sweat dries on the skin, the patient is covered with a coating of urea crystals. The sweat, like the urine, must be regarded as an excretion, the secreting cells eliminating substances formed elsewhere."* *Kirk's Physiology*. P. 579.

All foods, meat or vegetable, contain a very large per cent of water. The banana could not have expanded if it had not been for the liquids. The only substance that permits the orange to enlarge, from the seed, is *water*. Orange juice is *water* with sufficient of this or that solid to transform its color and taste. You know what coffee is; 99 per cent water and 1 per cent of the bean that flavors it. What caused the coffee bean to expand? *Water*. Do you realize that tea, wine, beer or any beverage is *water*? Everything that enters the mouth is or represents what water has accomplished.

Water then, is the basis of your or my existence in two ways: 1st, keeping the body expanded, 2nd, caring for the bodies of growing things in a normal condition to maintain their entity. It is *the* essential for living. If an individual dismisses the water problem from his existence; eats foods absolutely dry, his duration on this plane would be short and bitter for no death is so horrible as that of the parched traveler on a desert unable to locate a drop of moisture.

The water we drink and the food we eat pass thru at least five changes. As it enters the mouth it mixes with the saliva, in the stomach it is churned with splenic fluid and becomes chyme. From thence it proceeds thru the first third of the small intestine, the duodenum, and becomes mingled with pancreatic juices and bile and is called chyle. These are in turn constantly blended with mucin and are transitional changes of the original fluid. Saliva is the product of three sets of glands; splenic fluid is the fruit of the spleen, the pancreatic juice is the issue following activity of the gland which it is named

after and the bile is the excretion of the liver. Proceeding into the ilium (the end of the period of digestion) the chyle is absorbed, taken up by and passed along thru distinct tissues and channels of its own, which is known today under many heads, e. g. connective, supportive, epithelium, mucous membranes or serous tissues. Call it what you may, it is but a *transitional* serous structure. This fluid (now serum) is advanced to be distributed to any and all solid organs, in quantities demanded. It goes to the brain, feet or anywhere in between and is utilized. A large proportion, in its circulation, goes to the glands collectively, each receiving its needed amount.

Glands are most important organs. It is these which transform or convert serum to the chemical—a necessity to reduce external substances to internal condition for absorption—the smaller proportion going to muscles, bones, ligaments, etc. After osmosing, into and thru the cortical substance of glands it is excreted and technically known by the name which physiologists have seen fit to suggest.

It passes to the muscles as serum, is seeped thru and delivers a liquid food. The waste, on the other side, is *urea*. That waste portion which passes thru the epidermis is perspiration—altho technically *urea*. In, around and between all muscular fibres is a fine net work of intervening fasciae, thru which passes serum on its way to feed muscular tissue, the excrescence being *urea*. Such cannot reach the surface but must pass onward and continue into the circulation, eventually reaching the external world by way of kidneys.

You will notice, pre-eminently, that I differentiate between liquid and solid foods, altho this one circulation carries and distributes both. The value of foods is just so much as its consistency is carried in soluble form, with corresponding chemicals. Do not think me a water hobbyist, far from it, but this body is the product of indispensable principles which must be deduced regardless of where and what they reach. This machine represents the aggregation of liquids and chemical, therefore must be maintained, likewise properly prepared. "Properly prepared" means that man, *externally cannot* mix or compute the relative values and proper quantities, such as may be and



are needed in the human when abnormal. The mixing or conversions are alone within the jurisdiction of *Innate* who was the first and will be *the only master chemist*.

Water, as a *liquid* food, is digested and assimilated; passes thru each change, as a vegetable or meat, thence to small intestines, where true preparation and absorption takes place. Water must undergo conversion as well as solid foods and passes every assimilating condition. Solid and liquid foods are acted upon in the same cavity but each by its chemical affinity. The mechanical analogy necessary to digest liquid food would not be equal to mixing solids. The chemicals, acting upon lemon, apple or orange juices would not act upon their pulps. It may contain a part of one or the other but the proportions will be differently adapted according to the various acidities and solidities of the ingredients. Chyle (representing the nutritive qualities) is acted upon by the absorbent system and by the same transporting medium is taken likewise to every tissue cell for utilization.

Liquid food is absorbed by the intestinal papillae and carried forth by this distinct and complete serous circulation. This is as thorough, well marked and as well defined as to starting and ending channels as the arterial or venous circulations. It is more eminently capable of entering more intricate places than blood.

Closely investing every organ, gland and tissue in the body and thoroly entering into every muscular or osseous fibre is its serous membrane and is named to denote location—pericardium, around heart; endocardium, within heart; pleura, sac for lungs, etc. If between various viscera it is a *supportive* membrane and that reticulum between muscular, cartilaginous or osseous fibres, is *connective membrane*. So minute does this sub-division become, that there is not the smallest fibre or cell thereof but what has its serous tissues, so that in studying Chiropractic physiology we refer to them, in general, as “serous in function.”

There is not an anatomist or physiologist, outside of *The P. S. C.* who have any cognizance of or teach the knowledge of a serous circulation. I have been accused, several times, of purloining this subject from some antedeluvian or recent medical books. It represented

months of labor before I could prove to the *first class* (following its discovery) that it was a "possibility," but before graduation they were satisfied of its actuality. *P. S. C.* clinics, as elucidated, redoubles the fact that there is a different circulation of liquids, as serum, urea, urine, and the many glandular juices. Refer to the clinic, spoken of: entered *The P. S. C. Infirmary* with the epidermis dry and scaly. Today the external surface is oily and moist. Students noticing the rapid change and feeling of the body, remarked: "That epidermis is perspiring now and was not a few days ago." It is pleasing to have others note these changes. Students of *The P. S. C.*, becoming thoroly imbued with the knowledge of this study, see that, next to the discovery of the subluxation of vertebrae being the cause of disease, *this* exception, has more consequence than any other developed in the last few years.

The weakest part of the spinal column is at the junction of the 12th Dorsal and 1st Lumbar. One person has passed under my examination who had not a sub-luxation at this place. Such misplacements of vertebrae produce pressures upon nerves leading directly to the kidneys, the most important excretory organs in this system. Interference with the brain impulses, on their way to these glands, interferes with the control of these local functions.

Many authorities could be quoted to show where medical apprehensions come *very near* to accepting the idea of what *The P. S. C.* teaches as a serous circulation. Osteopaths today are handling such ideas as if they were hot irons. They slyly give it their deepest thot, but do not dare let anyone know they are studying it. Osteopathy is trying to handle this as well as many Chiropractic ideas with kid gloves and are afraid of getting a shock. Chiropractic is the first science that dared to fearlessly pronounce subluxation to be *the* cause of *all* disease. *The P. S. C.* now takes another measure ahead and proves there is a serous circulation.

Dr. Brubaker, in *Quiz Compend on Physiology*, P. 29, says:—"Water is the most important of the inorganic constituents, as *it is indispensable to life*. It is present in all *tissues and fluids without exception*, varying from 99 per cent in the saliva to 80 per cent in the blood, 75 per cent in the muscles to 2 per cent in the enamel of teeth. The

total quantity contained in a body weighing 165 pounds is 115 pounds."

Do you realize that 115 is to 165 almost two-thirds? You and I, are two-thirds water, the balance is skeletal tissue or frame work minus the moisture. What is left of a body after cremation? A mere urn of dust. Even the brain is  $\frac{7}{8}$  water. The surface of the earth is 2-3 water, and the same proportions is met with in each living unit; thus the same ratio is a universal law when applied generally.

Reverting to water, how essential must be the study of that which is 2-3ds of us? What does it do? Why and how does it enter, what changes does it go through, in what manner does it get to various tissues, how are they absorbed and carried out are but a few questions which this knowledge conclusively answers.

Many quoted paragraphs could be slightly transformed to coincide with these thots. Questions without number, are unanswered in these cited pages and it is to answer those that I shall bore the listener to the comparisons. Remarks in parenthesis are mine, included to make sense and proper thots.

On P. 537, *Kirk's Physiology*, 17th Edition, we find:

"The main function of the kidneys is to (osmose urea thru its texture converting it to urine). The true secreting part of the kidney is the glandular epithelium that lines the convoluted portions of the tubules; there is in addition to this what is usually termed the *filtering apparatus*

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Though the process which occurs here is generally spoken of as a filtration, yet it is no purely mechanical process, but the cells (Intelligence behind them) exercise a selective influence (function under the guidance of Innate) and prevent the albuminous constituents to escape.

"The term excretion is better than secretion as applied to the kidney, *for the constituents of the urine are not actually formed in the kidney*, (as for instance the bile is formed in the liver,) but they are formed elsewhere, ("*where*" this "*elsewhere*" is we are left to guess) the kidney is simply the place where they are picked out from (serous tissue) and eliminated from the body. "

P. 541 says:—"The epithelium of the convoluted tub-

ules has a structure *which suggests from its resemblance to other forms of secreting epitheliums, that its function here also is secretion.*

"But the proof is not absolute, for the pigment is a foreign substance. *Urea is a very difficult substance to trace in this way because it does not leave any coloured trail behind it.*

*"Other experiments, however, have been undertaken to prove the point for the case of urea."*

P. 545 maintains that:—"Extirpation of one kidney for various reasons is a by no means uncommon operation. It is not followed by any untoward result. *The remaining kidney enlarges and does the work previously shared between the two.*

"Extirpation of both kidneys is fatal; *the urea, etc., accumulates in the (areolar tissues) and the animal dies in a condition of coma preceded by ureamia."*

"Removal of one kidney, followed at a later period by removal of a half or two-thirds of the other, *leads in dogs, in which the operation has been performed by Bradford, to a surprising (to them, yes) result. After the second operation the urine is increased in amount, the quantity of urea is much greater than normal. It is thus evident that the kidneys play an important part in nitrogeneous metabolism apart from merely excreting waste substances. The exact explanation is still to be found, but it is possible that the kidney, like the pancreas and liver and many ductless (?) glands forms an internal secretion.*".....

P. 552 says:—"The urea does not come, however, direct from the food; *the food must be first assimilated, and become part of the body, before it can break down to form urea.*

"The older authors considered that it (urea) was formed in the kidneys, just as they also erroneously (once and awhile they admit a mistake) thot that carbonic acid was formed in the lungs. Provost and Dumas was the first to show that after complete extirpation of the kidenys the formation of urea goes on, and that it accumulates in the blood and tissues. Similarly, in those cases of disease in which the kidneys cease to work, urea is still formed and accumulates.

"Where then is the seat of urea formation? —————

Yet there can be no doubt that the *chief place* from which urea ultimately comes is the *muscular tissue*. *Some intermediate step occurs in the muscles; the final steps occurring elsewhere.*" He starts a question and leaves it worse if such were possible. "Some—step" and "elsewhere" leaves the question bounded by empty space.

"Similarly other cellular organs, spleen, lymphatic glands, participate in the formation of urea; but the most important (is in all muscles) this (kidneys) is the organ where the final changes take place. The urea is then carried by the (serous tissues) to the kidneys, and is there excreted (as urine.)"

It is easily seen that this standard author is in a quandary. Points simple to know with the exact knowledge of serous circulation, are such that could not be answered in any other manner, according to any correct physiological and anatomical basis.

In speaking of "*Secreting Glands*," *Kirk's Physiology* has the following:—"These materials are of two kinds; viz., those (serum) which are employed *for the purpose of serving some ulterior (definite) office in the economy, and those (urine) which are discharged from the body as useless or injurious.*

"The secretions, as a rule, consist of substances which do not pre-exist in the (proper) form in the (serous membranes) but require special cells and a process of elaboration for their formation, e. g., the liver cells for the formation of bile, the mammary gland cells for the formation of milk. The excretions, on the other hand, commonly consist of substances which exist ready formed, (after the organ has taken from serum what was needed). If from any cause (*why not state what "any cause" is?*) such an extensive disease or (the inability of the gland to get substances from which to secrete, is abnormal, in excess, or not enough of); the excretory organ, the separation (or excess of) *an excretion, is prevented, and an accumulation of it in the (serous circulation) ensues, it frequently escapes through these tissues and may be detected in various fluids of the body.* An instance of this is seen after the kidneys have been removed. *Urea then accumulates in the (circulation that ordinarily would go to the kidneys.) But this is never the case with secretions; for af-*

*ter the removal of the special organ by which each of them is manufactured, the secretion is no longer formed.*

"The circumstances of their formation, and their final destination, are however, the only particulars in which secretions and excretions can be distinguished; *for in general, the structure of the parts engaged in eliminating excretions is as complex as that of the parts concerned in the formation of secretions.* And since the differences of the two processes of separation, corresponding with those in the several purposes and destinations of the fluids, *are not yet ascertained, it will be sufficient to speak general terms of the processes.*" The serous circulation has laid aside the "general terms" and is specific.

"Every secreting apparatus consists essentially of a layer of secreting cells arranged round a central cavity, they take from (serum) the necessary material and transform it into the secretion which they pour into the cavity."

The principal secreting glands are the serous, synovial, and mucous, areolar membranes; the lymphatic, salivary, pancreas, mammary, liver, lacrimal, kidney, thyroid, supra-renal, and testes glands, etc. The skin and kidneys are the great emunctories.

The small intestine is the true distributor and convertor of nutrients from the inside outward, and it is at this point that water, mixed with the juices of solid foods which have been digested, are converted into serum. It is known by the latter name after having seeped, by osmosis, thru the walls of the small intestines into serous tissue.

Everything entering the mouth leaves, thru the skin, kidneys or bowels. It enters into the care of your body and an action works it to the surface. Can you think of anything that does not work in the manner from inside to the out?

From the point of entrance into serous circulation it starts on a tour from which many side trips, to all organs and tissues, are to be taken in, all eventually reaching one final destination—kidneys. Capillary attraction has been offered as a means of giving the impetus, but such is an explanation that deciphers *nothing*. There is a principle behind everything and to beg the question is to remain ignorant. The more Innate and how she performs, not alone one but all functions, thru *direct* action, under commands

from Innate brain, is studied, the less you will consent to accept the above or twaddle with inconsistent offerings. The M. D's and D. O's have known of a capillary circulation but such does not show the specific adaption of Innate to circumstances and when that cannot be demonstrated I must dismiss the subject. "Capillary attraction" is an excuse proffered similar to "Sympathetic Nervous System." Talk about that which nothing is *known of*.

Close observation and study reveals that all mucous membranes and connective tissues have a subdivisinal layer-muscularis mucosae—having muscular fibres in its construction. Its functions are to contract—propel serum on its onward march. Glands have muscular fibres which yield expansion and contraction to permit a sucking or gasping inward movement, the kidneys portray this action very nicely. It is not necessary that each inch be composed of solid muscle to get free action. It is direct muscular contractions, all along this path, which give specific movement, all of which, combined, make a definite, direct and specific set of movements thruout the serous body.

Investigate the structure of the kidneys which complete the circuit of the serous circulation. They are, as it were, two sponges which contract and expand. By this principal it draws urea *after* it has passed thru the succeeding stages, from serum to urea. The exterior surface of the kidney is covered by a very closely woven fibrous capsule of investing serous membrane. Anatomies refer to the investing serous membranes of this as well as *all* glands but as a peculiar oversight (?) never tell *why*. This most important physiological question we are left to guess *and* answer. There is a reason. What is it? The kidney has two circulations similar to the portal and arterial of the liver. 1st, the passage of serum which feeds and moistens the structure of the gland proper. 2nd, the sapping of the urea and conversion of that to urine.

The acceptance of urea takes place thru a sheath which is the end of the channels by which this circulation is carried. It moves thru that and glides into the structure of the kidney, thence into tubuli uriniferi which reach from the cortex and with hundreds of others empties into the ducts of Bellini, the culmination of which is the belly of the kidney into which urine gathers.

Previous to going to kidneys, a small separation of urea goes thru the supra-renal capsules, where some of the chemical constituents, necessary to maintain digestion, are extracted from it and carried to the retaining organ. Very little and poor would be digestion if not acted upon by this fluid. It is an absolute necessity. Bile is the chemicals for action upon fatty, solid foods to reduce to chyle. Giving to the supra-renal the function of extracting certain chemical substances from urea and thus conferring upon the organ the function of making specific necessities for maintaining muscular tonicity. Thru the kindness of A. A. Erz, D. C., I am able to use the name—reninogen—coined for this purpose.

The structure of the capsular glands, inside and out, are composed of serous tissue. For proof, we quote from *Kirk's Physiology*, 17 Edition, P. 333, which reads:—"Structure. The gland is surrounded by an outer sheath of connective tissue, (connective tissue is always serous in function), which sends in fine prolongations forming the frame work of the gland."

The specific function of these organs has never been solved up to this date. The following from the same book, P. 334, speaks of the results, effects, symptoms, that follow a diseased condition. This is the nearest medical authority to reaching Chiropractic principles. The following quotations, in connection with the original statements, will clear the question of function involved.

*Function.* The immense importance of the supra-renal capsule was first indicated by Addison, who, in 1855 pointed out the disease now known by his name. It is associated with pathological alterations of these organs. This was first tested by Brown-Sequard, who found a few years later that *removal of the supra-renals in animals is invariably fatal*. The symptoms are practically the same (altho more acute) as those of Addison's Disease, namely, *great muscular weakness, loss of vascular tone, and nervous prostration.*"

*"The capsules, therefore form something which is distributed to the muscles and is essential for their normal tone; when they are removed or diseased the poisonous effects are the results of the absence of this internal secretion."*



"The immense importance" has been shown in that removal of them meant death, but the connection between that and the reasons "how" and "why" are markedly absent. It is these gaps that this lecture aims to fill.

Extirpation of the thyroid brings on a similar condition differently located. Does not removal of the appendix in 99 per cent bring on costive fecal matter? Does not removal of the spleen manifest imperfect indigestion? Does not damming back of bile interfere with chemical assimilation? Removal of the thyroid eventually means a hurried death.

*Kirk* says the capsules "therefore form something which is distributed to the muscles and is essential for their normal tone; when they are removed or diseased, the poisonous effects are the results of the absence of this *internal secretion*" which is unknown (to them), as to how it gets there, where it comes from, what it is or a name for it. He did not know *how* death was induced; the principle has been left for other minds to discover. Because of the impairment of nutrition we demonstrate that water conveys *the* (and all of "*the*" essential foods. To advance the idea that water is a portion of the nutritious foods means that it must be digested and then distributed to tissue.

"All solid food is in liquid form." The first advocacy of this idea in *The Science of Chiropractic*, Vol. 1, brought many comments upon the previous sentence. It *is* a solid food in the liquid form, differentiating it from water as a liquid food. All foods are reduced to a fluid. Serous circulation conveys nutritive qualities of solid *and* liquid to all parts of the body. What does blood do? It conveys oxygen to make combustion possible to tissue. The more I investigate this question the less value is placed in blood. It is like a thief that has been stealing the honors of others. True nutrition and serum will be found in blood, the same as in any other tissue thruout the body, but that is not evidence sufficient to prove because food is there it *is the* transmittor. To support, in addition, that blood circulates serum, would be giving two functions to *one* organ *which is never the case in the body*. To assign that which performs the function of circulating foods we must look further than blood. The

purpose, intents and uses are well supplied in serous circulation.

After serum has been utilized, it is carried to the excretory organs, namely, skin and kidneys. The two latter are to serous circulation what the bowels are to solid foods—the gatherers of waste.

Each body has an independent system upon which its physical economy is run. It needs certain chemicals in proper proportions, and if one is entirely lacking it will be Innate's aim to convert what *is* given, into the opposite, to maintain its chemical equilibrium.

The practice of medicine, where *man* is *trying* to tell how much or little of this or the other chemical, is needed in the body and is attempting to generate and supply it himself is but the practice of guessing, for no person, exterior to, can see, observe or accurately *know* what *is* needed upon the inside. Its proportions are secrets and dense subjects—incomprehensible to the physicians whose endeavors are to be honest, but trying to surmise, fancy or stretch the imagination. Meanwhile the patient does and will continue to suffer all for the lack of knowledge of *the cause* of the incoordinate chemicals. The physician—personally—is honest but his science (?) makes him dishonest.

Any case of indigestion will illustrate the idea in which is lacking a certain percentage of splenic fluid (gastric juice) to keep up assimilation. How is man to tell how much or little of its constituents are in excess or lack of and is necessary to return to equal dimensions? Where is the man, student or professor, or group of them, that will take any case they may so choose, place these deductions in writing and convince any jury of common men that they can accurately tell? He can conjecture, experiment, suppose, and in a measure, try to give to the stomach what it lacks but does stay there? If it is minus today will not the same cause produce equal conditions tomorrow, one week, month or ten years from now? What he induces to be taken today will have left the body in 36 hours, the temporary relief is not permanent. *Now*, what does he do? Tries the same again and again, experimenting with various compounds, *until* the patient quits in disgust or dies to get relief.

One case recently gave me much to think about. I tried to apply serous circulation ideas but, upon first consideration, the progress made nor its principles could not be applied. I left the patient, preferring to study the cause and its symptoms, until a later day when something tangible was forthcoming. Later the patient was consulted and the following conclusions reached. Semen is a glandular juice and is converted serum; that which expells or carries the spermatozoon from the male body is the product of prostate and testicles which convert serum to semen. According to Vanquél it is 900 parts of water, 50 animal mucilage, 10 of soda and 30 of calcareous phosphates. Again you are face to face, with a prepondering quantity of this fluid. Entering the affairs of that person's life I found that intercourse was no infrequent occurrence. The serum which should have been carried thruout the system to keep all parts moist *was being sapped to these glands and spent excessively*; these glands dried the body. The individual found that after every cohabitation this dry, scaly condition was present. Cessation of excess corrected the effects.

Suppose we close the pores of the skin of the body for one day by coat of tar. Death is the supposed result, altho this subject is a mooted one and open for discussion. Removal of both kidneys is equivalent to death. Extirpation of one kidney finds the adaptation of the other in doing its mate's work. How could that kidney do twice its work if it did not have connection with its opposite? In extirpation of both kidneys the individual dies because there is an accumulation of urea in the body. Cases are on record where *urine*, not urea, was perspired. Other cases, where urea becomes dammed back into that portion of the serous circulation which should carry forward, have dropsy. *Serodema is the accumulation of serum* in those portions of serous circulation which would distribute *normally* this product to all tissues. *These new ideas, one by one, are* productive of the implantation of independent cultivation and show that serous tissues or membranes have successive stages of a definite circulation which sustains the idea of specific channels, and all can exist *when blood, has been, is and continues to be normal in its work*. The functions

of serous circulation may be away off and the other normal.

Hitherto a disease of the supra-renal capsules has been a dangerous and surely fatal one, sooner or later, because no cure was known. Even to interfere with serous fluids manifests its results. Physicians make urinalysis a specialty. When finished they are aware how much of this or that chemical is lacking out of a possible one hundred excreted parts but the cause of the combinations that existed to produce such are unknown. Even *if* they could be deciphered it would be impossible for *man* to give to the body what it needed, and *if* possible for the physician to give these organs, superficially made juices, they would nor could not conform to the rightful proportions, for Innate is a chemist that stands unequalled. She holds the unique position of being able to create that which man cannot duplicate, internally or externally.

The function of the kidney is like that of the sponge, to suck or sap inward. This necessitates, normally, a constant vermicular motion and keeps Innate adapting herself to circumstances. If the left kidney be dis-eased (not at ease) *she* will accommodate herself with the opposite. If the individual be 80 years of age, it is this Innate who adjusts actions to the changes. Suppose another party be a youth, the actions are differently expressed than was observed in the former.

The excretion is again a matter of adaptation which must correspond, if all is normal, to the quantity taken internally, minus the substances utilized as food. When the kidney's belly is full, Innate conforms motions to the circumstances; contracts and expells the urine into the ureter (the size of a goose quill) emptying it into the urinal reservoir—the bladder, and this in structure is so arranged that it has small valves and, when full, Innate realizes the fact; opens valves and urine passes from the body.

Did you ever think what would become of you if the two-thirds of water were thoroly removed? What thots would run rampant if you knew that no birth could take place if the foetus did not float in water? The first object after conception is to float the new fused substance in water, and, in this manner remains until birth when the

large sac bursts permitting free and easy delivery. The very existence of water at this time is a fine example of the supreme use of that which allows expansion. Fluids are the only substances which permit such action. This new being can be compared to seeds, planted in the ground. Take away moisture and what have you? *Blood is not in the seed or ground, but moisture must be to permit expansion* of its germinal kernel cells to have the future growth. How great, then, must be the concentrated study of that which is the early life giver? You are aware that shortly after conception the cervix uteri is plugged with mucus, which dams the entrance from external objects and serves as a retainer to the internal liquids, using the same good judgment that a farmer would in retaining water in tanks or a lake to spread over his fields, etc.

The great pliability of muscles and joints, the softness of skin or ability to move and the acts of raising bones are due to the transformations of water, with its component foods, into various secretions. We could not give or take, contract or expand, if it were not for this physical function. If for no other reason, the fact that two-thirds of the body is composed of serum makes the serous circulation an important study.

In enumerating the functions of serum, I give it four: 1st, to moisten every tissue with a secretion to obviate friction; 2nd, to deposit its proportion of chemical constituents, necessary to produce material for combustion. The mere matter of deposition is not calorification nor will it be until the spark (brain impulse) is received which explodes the gasses; 3d, to cause germinal cells to expand, thus giving vent to Innate's forces which means the maintaining a normal as given at birth, until there be no more germs to expand, then death ensues; 4th, the nuturing of all tissues in the body, as serum represents the nutrition of all foods in soluble form.

If we did not have water, the sponge, bean nor corn *could not expand*.. Were there not moisture the rose bush would never bloom nor could the apple tree give fruit, nor the pear tree its products. *It is water alone* then that causes expansion and fills intercellular tissues with the substance which causes it to retain its condition, until maturity is reached. Between all cells are fine intercellu-

lar tissues with the substance which causes it to retain its maturity is reached. Between all cells are fine intercellular passages, bridged across by fine protoplasmic processes, which pass from cell to cell; the channels between the cells serve for the passage of serum and urea according to direction. For serum to become an integral part of the cell by nutritious and combustional means, it must pass thru transforming tissue, which takes from serum its useful products, throwing the unused portion—urea—forward into continuous circulation.

Everything that lives has one basis for its existence—expansion, superinduced by water. For those animals that have animation, there exists in addition to the above fundamental principle—blood circulation to convey oxygen for heat producing purposes. Trees, plants and vegetables *live without* a blood circulation because internal heat is not a requisite to their existence but moisture is. Plants live from external heat, and when they get below their normal they cease to expand and become dormant. There being an absence of heat in winter the plant ceases to show its beauty and retires to sleep. All animals, 2 or 4 legged, have and need internal heat—therefore a blood circulation. Plants, *vegetables, etc., receive and utilize nutrient substances minus the blood circulation. What tissues, convey it then?*

It is impossible to credit the blood as the conveyor to a plant for it has none, nor nothing similar. The tree has “sap” which has definite osmosing channels, thus going to the minuest parts but it does not have channels like arteries or veins. Sap is to the plant what serum is to man

*The foundation principle of man and plant is equal.* Such men as Darwin uphold this principle. Step by step the same principle should be followed until the lower elevation of man is reached. His *life* is due to the same “sap” conveyors, which reach every cell. Upon this basis I am convinced that past investigations, in which blood has figured as the attractive sphere for possessing and carrying the nutritive qualities, is all wrong.

Serous Circulation is the nutrient conveyor; arterial and venous blood transmit oxygen and carbonic acids respectively. It is true, in these are to be found some of

each of the first named for no one tissue lives entirely and independently of the action of the other, yet each has its respective centers.

"Blood is Life", is and has been the teachings of Dr. A. T. Still and other medical men. According to these authorities, trees, plants and all vegetables, altho *growing*, are dead, not alive, because they are devoid of blood. "It cannot live unless blood is present." Vegetables have no circulatory channels equivalent to what is in man—the blood circulation. It has a "heart" in so much as it is a "core."

The "*sap*" of each tree has a definite starting and ending point. This sap or serum is present in every living thing whether vegetable or animal, and has a definite circulation.

Man has the express difference of creating his own heat from the inside whereas all vegetation depends upon the sun or hot houses for their heat. This additional function in man is met by adopting to him the blood *which other creations have not*. Thus we reach a fundamental law that is universal.

I am aware this is a broad jump, and one in which ridicule will be heaped upon me by all professions but it is because I, at least, and those keen students who imbue it thoroly that agree with me, that encourages me to speak what I think. At first reading it will appear the height of ridiculousness but *studying* (not reading) will open a cloud now and then, for these paragraphs are full of meat if the shell be broken.

Continuing the subject of comparison between "*sap*" I shall quote a few definitions and paragraphs from authorities which assists in substantiating the differences. The past supposition have been that blood, of man, and sap of vegetation were equivalent. The only authority to agree to that is one M. D., the balance create a distinction. It is my wish to have this lecture studied until the distinction between blood and serum is known.

"Sap. The circulating fluid of plants, corresponding to the blood of animals."—because a serous circulation was unknown. *Dunlison*.

"Sap. *The juice of plants of any kind, especially the ascending and descending juices or circulating fluids essential to nutrition.*" *Webster*.

"Sap. *The nutritive fluid which circulates by endosmosis in plants.*" *Illustrated Dictionary of Medicine.* Gould.

"Sap. The watery juice contained in living plants. *It is derived from the soil, and enters the plant in a state of solution. As crude sap ascending to the leaves, it is transformed into elaborated sap. Descending again, this time through the bark and more or less circuitously, it forms the cambium whence young wood is formed. The sap ascends with great rapidity in a zigzag course, sending off lateral currents to the leaves. The most copious ascent is in the spring; in winter the operation intermits. The sap increases in density as it rises.* *New Revised Encyclopaedia Dictionary.*

"*Ecology.* Holophytes: the word signifies "the whole plant," and refers to those plants whose mode of life is entirely of the ordinary kind, which includes all green plants, *which construct their substance from absorbed water, soluble nitrogen salts, and other salts; that is, from wholly inorganic materials. The province of ecology is to consider the various adaptations of the plant as a whole to obtain such food materials.*" *Encyclopaedia Britannica.* Vol. XXVI.

"*Assimilation in Plants.* The term assimilation, as used in plants, is capable of various limitations. In general, the term has been applied to the changes which take place in food-material from its absorption to the formation of protoplasm; that is, the work of anabolism, so far as it pertains to food." *Encyclopaedia Britannica.* Vol. XXV.

Under the title of "*Physiology of Vegetables*" we find the following:—

"*Absorption of Water and Substances in Solution.* *The bodies of plants, unlike those of the great majority of animals, do not contain any internal cavity into which the food may be taken as a preliminary to its being absorbed by the tissues. The materials of the food of plants are therefore taken up directly from without into the cells of the absorbent organs. The cells which are especially concerned in absorption are, in the higher and subaerial plants, the root hairs,—thinwalled, unicellular, unbranched filaments which are developed from the epidermal cells some way behind the growing point of the root; in the*



lower plants, and even in those of the higher plants which lie submerged, all the cells of the plant may take part in absorption. Since *the food is directly absorbed* by the cells, and since the cells all possess a cell-wall, *the materials of the food must be taken up in solution*. Salts and other substances are, as a matter of fact, taken up by the absorbant cells in the form of *watery solutions*. *Substances which are soluble in water are dissolved in the water which is present in a greater or smaller proportion in all soils, and of those which are not soluble in water, many are brought into solution by the acid sap which saturates the walls of the root-hairs*. The actual process of absorption is an instance of diffusion through a membrane,—that is, of osmosis.

“Further, *only such substances can be absorbed* by the root hair *as are present in larger proportion in the water to be absorbed* than they are in the cell-sap of the root-hair; this inequality between the proportion of any substance in solution in the liquid on the one side and in that of a membrane on the other is a necessary condition of osmosis.

“It is obviously necessary, in multicellular plants in which certain cells only are in a position to absorb food-materials from without, that these food-materials should be conveyed from the absorbent cells to the remainder of the plant. *In no plant is there any organ comparable to the heart of animals, by means of which a distribution thruout the tissues of absorbed food materials is* (supposed to to be) *effected*. *The distribution (in plants) is accomplished by purely physical means, principally osmosis*.

“Stating the forgoing facts in the most general terms, it appears that in plants *the food-materials travel by osmosis from the absorbent organs to the organs in which the processes of constructive metabolism are carried on*—in one of the higher plants, for instance, from the roots of the leaves—and that the distribution of the food-material is assisted and accelerated by root-pressure and by transpiration, (perspiration), the fullest expression of this being the transpiration-current in terrestrial vascular plants. And just as there is a current of food materials tending towards the organs in which the processes of constructive metabolism are carried on, *so also there is a current of the*

*organic nutrient substances formed in these organs traveling from them to the other parts of the plant. These vessels consist of elongated cells placed end to end, the septa between the adjacent cells being perforated so as to admit of a direct continuity between their protoplasmic contents."* *Encyclopaedia Britannica*. Vol XIX.

The above quotations prove that plants live *without blood* or any similar process. If these can expand and become the images of *life* expressed in innumerable beautiful forms *why could not man, upon a higher plane, use the same fundamental principle for his expansion?* The "sap" of plants is equivalent to serous circulation of man, and answers the same purpose.

In furthering the defense of this argument I submit the following from Dr. Carpenter's, *Principles of Human Physiology*. "*Distinction between Animals and Plants*. However difficult it may be for us, owing to our imperfect knowledge, to draw the line in individual cases, it cannot be doubted that a boundary does exist; and in general a *very simple mark* will suffice to establish the distinction. *This mark is the absence or presence of a stomach or internal cavity for the reception of food.* The possession of a stomach cannot be regarded, however, as in itself, an essential distinction between the two kingdoms; for its presence is merely a *result*, so to speak, of the nature of the food of animals, and of the mode in which it is obtained. Vegetables are dependent for their support, upon those materials only which they obtain from the surrounding elements; carbonic acid, water, and ammonia, duly supplied to them, with a small quantity of certain mineral ingredients, afford all the conditions they require, for the production of the most massive fabrics, and the greatest variety of secretions.

*"They (animals) cannot incorporate any alimentary substance into their own tissues, until it has been reduced to the fluid form; hence, they need the means of effecting this reduction, which was supplied by the stomach. Again, they cannot be always in immediate relation with their food; they have to go in search of it, and need a store room in which it may be deposited during the intervals; this purpose also is supplied with the stomach."*

The *absorption* process is carried more thoroly by the

following chapter which is in accordance with the views of serous circulation. He says:—"A distinction might be probably erected between the animal and vegetable kingdoms upon the mode in which the first development of the germ takes place. The seed of the plant, at the time of fertilisation, principally *consists of a store of nourishment prepared by the parents for the supply of the germ*, which is introduced into the midst of it. The same, may be said of the egg of the animal. In both instances, *the first development of the germ is into a membraneous expansion*, which *absorbs the alimentary materials with which it is in contact; and it prepares these by assimilation, for the nourishment of the embryonic structure*, the most important parts of which,—in the higher classes of animals and phanerogamic plants the only permanent ones—are in its center. In plants, *this membraneous expansion absorbs, by its outer surface*, which is applied to the albumen of the seed, and takes it more or less completely into its own substance. In animals, *this expansion is developed* in such a manner, that it surrounds the albumen, *enclosing it in a sac, the inner surface only of which is concerned in absorption*. This sac is, then, the temporary stomach of embryonic structure; it becomes the permanent stomach of the radiata; but in the higher classes only a portion of it is retained in the fabric of the adult,—the remainder being cast off, as soon as it has performed its function. Thus, then the first nisus of animal development is towards the formation of a stomach, for the internal reception and digestion of food; whilst the first processes of vegetable evolution tend to the production of a frond-like membrane, which, like the permanent frond of the lower classes of plants, absorbs nourishment *by its expanded surface only*."

In speaking of "*Serous Membranes*," Dunglison says on P. 202, "The serous membranes are transparent, thin, and composed of one lamina. *One surface adheres to other textures*, the other is smooth, polished, and moistened by a serous fluid. They are arranged—in the form of sacs *without aperatures—as great intermediate reservoirs for the exhalant and absorbent systems*, in which the serous fluid tarries before it enters the other."

While this paragraph is in strict accordance with

serous circulation, he has failed to give us head or tail, start or finish to "The serous membranes" and "serous fluid" that he refers to. *Dunghlison* has failed to speak of the function of serum, where it is formed, where it goes to after being utilized as serum or what transitional changes it goes thru from serum until it leaves the body. *Dunghlison* does not state function nor give any comprehensive explanation or anything about its work, if it has any.

Instead of being "sacs" or "great intermediate reservoirs," it is composed of reticulum-like structures actually transmitting serum by seeping or osmosis. Instead of holding, reservoir fashion, it is continually on the move. The only receptaculi in the body are rectum, bladder, and gall bladder, and then only for the collection of materials until sufficient is greater for evacuation.

We have studied the many authorities in *The P. S. C.* library and not one is found who gives any clearer knowledge of this most important subject than *Dunghlison*. Chiropractic philosophical investigation has advanced new fields of physiological truths.

For instance, you boys noticed the Sherlock Holmes manner in which was located the symptoms, which led to the ultimate name of a disease which had baffled medical experts in Chicago, New York, and other clinics. *The* cause was forthcoming as soon as its specific character was known. If you will apply in every case the same little wedge of evidence, as given, you can and must always lead such diseases to be abnormalities of serous circulation. All diseases including those of S. C. are merely action in too much or not enough, which is the abnormal expression of function. If a happy medium is reached then we have health.

The ordinary M. D. when he graduates from college with his head crammed full of knowledge, has a thousand remedies to be tried for each disease. Every nostrum is a "positive cure." He knows it all, nothing can be learned. It is this type that fights for the county or city physician's office; wants to be in on this, that or the other board to impress the world that he is a mighty man. In five years he has received a few feet drop. In ten years he is using two-thirds less medicine. In twenty years he is saying that he knows but little and will use from two to four drugs

for all diseases. Continuing another five years and two medicines are enough to perform all the work, one for the stimulation of that which is below normal (and his experimenting will teach him which is best) the opposite will be to deaden senses, demoralize function when it is acting in excess. Many M. D.s have run the usual gauntlet and gone one better by quit using drugs and learning Chiropractic. Chiropractors could be dishonest but won't. The science is based upon fundamental facts that needs no misrepresentation.

The following late Associated Press dispatch verifies the above statements:

Philadelphia, May 11.—“He is the best physician who knows the worthlessness of most medicine,” quoted Professor William Osler of Oxford university, England, in his lecture to the Pathological society today at Pennsylvania hospital. He said he would admit that there were four drugs of inestimable value in the practice of medicine. When he added that he would decline to name them a roar of laughter went up from more than 200 physicians.

Professor Osler said the world had more to hope for from the work of the Pathological society than from medicines. Since the society's first meeting 50 years ago, discoveries of the pathologists had revolutionized the practice of medicine. Thanks to the pathologists, whose duty it is to know the reason for every disease, and who, knowing its cause, *remove the cause*, the province of the physician has become of prevention quite as much or more than one of cure.—*Portland, Oregon, Journal*. May 11, '07.

Let us consider some of the abnormal conditions that follow interference with this system. General dropsy represents too much urea in the uremic tissue. This is due to the inability of the kidneys to sap off or gather inward the urea as it is brought into contact with them. In local dropsy, where it is confined to a specific area, whether that be hydrocephalus or ascites it will have, on combination, a sub-luxation which is impinging vermicular motor nerves, not allowing sufficient brain impulses to that region, thus not enabling the muscular fibres previously spoken of to propel urea to the kidneys. For dropsy then we would always find one sub-luxation, viz., K. P. and its union with that, determined according to the location of

the restricted dropsy. Serum continues to circulate normally but urea fails to go out, the result is that excretion of urea continues to gather but excretion ceases—dropsy—urination continues but the upholding is greater than the intake or outlet. The subluxation which produced either has never been adjusted, therefore exists and leaves that region weak—resisting abilities are depleted.

Why is it deposited locally? If there is a previous weakness, lack of brain impulse to that localized area, a pressure upon those vermicular serous nerves leading to the limbs, thorax, abdomen, skull, scrotum, etc., then the local spot predominates as a dumping ground, and has, as it were, first call. The propelling or resisting power is depleted and has not the motion necessary to pass it on. What is the thing to do? Follow the course of the M. D. or D. O. and look to blood? *or adjust the cause at the spine?* Kidneys and the local area *must be returned to their normal tonicity by restoring action.* Accordingly take off the pressure from those nerves going to the kidneys. They will then receive the normal quantity and quality of brain impulses. Remove the general hindrance and kidneys will resume normal work of sapping urea. This alone is not sufficient to make the individual well. The cause of *specific* weakness of serous cells must also be adjusted. After this the serous tissues in this area will propel forward its excess of urea until a normal state is reached.

The larger percentage of patients with dropsy of the limbs have had, at some time previous to the manifestation of the dropsy in that area, a weakness, as rheumatism or paralysis. If the localized area, has ascites then bowel or abdominal disorders prevailed. If it be hydrothorax, lung or chest difficulties.

We have viewed, briefly, an excess of urea thruout the system; concisely consider the opposite combination, diabetes. In this disease we have an excess of urination, which means that the sapping generally is in greater proportions than should be; drying and taking from the body what it must needs have.

The Chiropractor simplifies symptoms so that, altho diabetes may exist in many forms to the M. D. or D. O. it is taught as one disease at *The Palmer School of Chiro-*

*practic.* The various figures but manifest a greater or less degree of pressure upon the same set of functional nerves, thus expressing differently at the external, making slight variations in associations of effects and accordingly would be known as a separate or different disease. The M. D. is only capable of taking combinations of symptoms, diagnosing them, prescribing a treatment that he *thinks* will equalize it thus behooves him to have an acquaintanceship with symptoms. The Chiropractor's stronghold lies with *causes*, with which he can do more for each and every disease than all M. D's. There is not an M. D., unless he knows Chiropractic, that realizes where the cause of a single disease is. Send a Chiropractor into the field with only the understanding of how to adjust one subluxation, for typhoid fever, and he is capable of delivering better results than what has been delivered heretofore. That is how great the study of Chiropractic is.

To be able to adjust and correct *the* cause of typhoid fever is alone worth one hundred dollars to any man and yet, in each *P. S. C.* course you are taught the causes of *all* abnormal functions, and how to adjust the most difficult cases. Can there be any greater line of work to do, provided the Chiropractor be sincere and honest with himself as well as those whom he comes in contact with, and if he is square with himself he cannot be crooked with anybody else.

In diabetes we have a stimulated condition of the kidneys, an *excessive* vermicular action, made so by a *light* pressure on nerves as they emanate from the spinal column in their path to the kidneys. We may, or may not, have excessive heat. Sherlock Holmes' systematic study has deciphered cases of diabetes *with no indication of excessive heat*. If excessive heat is present its cause is due to *additional* pressure upon nerves of another function—calorific—in the same foramina, then follows diabetes mellitus—sugar in the urine, making the usual sediment.

Knowing that serum permeates every tissue in the body, is its "sap", we can see at a glance that its scope and importance are as wonderful to man as to the tree. Metabolism would be incomplete, expansion of germinal cells could and would not take place, and in many cases, where there is an anaemic condition, it is undoubtedly due

to withdrawal of serum in these cells reducing them to the collapsed state.

It has been an odd fact that from the early birth of Chiropractic, K. P. has always been adjusted for kidney troubles. From that time until 1906 many symptoms were known to be "kidney troubles" and yet *definite reasons why*, that controlled the general moisture of the system thruout, could not have been given anymore than the M. D. K. P. has always been corrected for "skin diseases" as eczema, scabies, barber's itch, dandruff or any other form where there was a general eruption upon the epidermis. Internal eruptions likewise involve serous circulation. The knowledge of serous circulation clears *many* mysteries which had previously existed.

Nerves which convey brain impulses that control serous tissue in a specific locality are lightly impinged, hence the circumscribed locality will have excessive action, carrying forward *too* fast—the skin dry and harsh. If there be additional heat with that, we will have an eruption upon the surface.

Some persons have general or local shiny epidermis representing lack of serum in that area. If the epidermis was receiving its proportionate quantity of serum this *could not occur*. The individual who does not perspire is always subject to heat strokes for his body is unable to perform its wanted functions of perspiration—excretion thru skin. If sweating were normal, man could stand a heat of 300 F. This would necessitate a corresponding amount of perspiration or sweat, the urea exuding accordingly.

How nicely that was brought out in today's new clinic. In questioning as to whether the kidneys acted freely she replied, "The kidneys operate more than fifteen times a day, and sometimes more." When asked if she "felt the heat in summer more than other girls" she answered, "Yes."

We have had one clinical case recently that has been a remarkable one. His general skin was *very* dry and scaly. When you raised the shirt a little cloud of scales would fly. The hair was so moistureless that if doubled back upon itself it would break. Hair and beard had lost the color pigments until it was almost white. The indi-



vidual never perspired but always felt the heat excessively. Following the adjustments, *which corrected the cause*, there has many times been a copious perspiration break out over the body. The permanency of improvement that this case has attained is the general oiliness of the skin, is soft now to what it was, the hair and beard are returning to their former normal color, which was brown. We have not had a case, recently, that illustrated serous circulation so beautifully as this.

Last summer's clinic had a patient who perspired only on left side of face and body, indicating a localized abnormality, one-half was not performing its wonted duty. He suffers with heat on that side and is normal on the opposite. Adjustments have restored co-ordination.

In addition to dryness and harshness of skin, produce additional pressure upon nerves which control *the utilizing of* nutrient substances in that specific locality. Dry skin existed and, in addition, take away nutrition; the tissue then wastes away in quantities and eczema in one of its numerous possible forms appears, the degree and kind of manifestation depending entirely upon how great a pressure upon nerves controlling these functions exists at the spine.

In connection with serous circulation, let us consider the equivalent values of blood circulation. Serous circulation is the generally passing to and from thruout our body of all that which is food in transitional forms. *Kirk* tells us that blood is 80 per cent serum. The brain is seven-eighths water. Suppose we remove the serum from blood and what have you? Twenty percent *solid corpuscles which cannot circulate*, it would cease to flow, proving the necessity of serous circulation which makes blood pliable.

Considering the body as two-thirds water and but a small percent blood, the latter circulating oxygen and the former all nutritive substances, then we must fall back upon serous circulation *as the first and greatest* giver to the other. We must conclude—at basis—serous circulation is of far greater importance than blood.

It is amusing to me oftentimes, in comparison to see osteopathic authors use the same adoration and awe of blood circulation. If this were to be "obstructed, hindered or impeded," disease would be the result. No great-

er authority on osteopathy can be found than Dr. A. T. Still, who says, "the rule of the artery is supreme, that upon blood depends life and the second interference with blood circulation is created that moment marks the advent of disease." *A. T. Still has never referred to the nervous system with philosophical completeness, to Innate.* They have stood like hungry birds, with open mouths and accepted with wonder the same bloody theories that mother birds (M. D.s) have dropped into their buccal cavities. The same principles that prove no basic *results* physiologically, philosophically and anatomically, have been honored, respected and adored. The difference being in the manner of treatment of the same visions, day dreams, and phantasies. Blood circulation is all, if not more, to the Osteopath than to his ancestor.

As our lecture embodies both subjects tonight, let us consider; we have at basis a heart, and from that the aorta, its divisions, smaller branches, arteries, capillaries, which are only one-five hundredth of an inch in diameter, distributed to each tissue and every square inch has from two to three hundred capillaries. *When consideration is given the established fact that there is an intermingling and intercommunicating system of anastomoses with a most complete returning system, it seems an impossibility, from internal reasons, whether it be under the guidance of Innate or not, to in any way stagnate this flow of blood.*

*Gray's Anatomy*, P. 474, 15th Edition, says: "The arteries, in their distribution, communicate with one another, forming what is called anastomosis, or inosculation, and this communication is very free between the large as well as between smaller branches. The anastomosis between trunks of equal size is found where great activity of the circulation is requisite, as in the brain; here the two internal carotid arteries are connected by a short communicating trunk; it is also found in the abdomen, the intestinal arteries having very ample anastomoses between their larger branches. In the limbs the anastomoses are most numerous and of largest size around the joints, the branches of an artery above inosculating with branches from the vessels from below. These anastomoses are of considerable interest to the surgeon, as it is by their enlargement that a collateral circulation is established after the

application of a ligature to an artery for the cure of aneurism. *The smaller branches of arteries anastomose more frequently than the larger and between the smallest twigs these inosculations become so numerous as to constitute a close network that pervades nearly every tissue of the body.*"

*Flint's Physiology*, Seventeenth Edition, Page 276, has the following to say regarding the anastomosing of venous blood. He carries the thought that is directly concerned with disease as taught by Osteopathy, obstructed blood, venous or arterial is the cause of disease:

*"When pressure is applied to any part of a vein and the current of blood in it is obstructed, the portion behind the seat of pressure becomes swollen and distended as far back as the next pair of valves, which are in consequence closed. Thus, whatever force is exercised by the pressure of the muscles on the veins is distributed partly in pressing the blood onward in the proper course of circulation, and partly in pressing it backward and closing the valves behind.*

*"The circulation might lose as much as it gains by such an action, if it were not for the numerous communications which the veins make with one another; through these the closing up of the venous channel by the backward pressure is prevented from being any serious hindrance to the circulation, since the blood, of which the onward course is arrested by the closed valves, can at once pass through some anastomosing channel, and proceed on its way by another vein. Thus, the effect of muscular pressure upon veins which have valves, is turned almost entirely to the advantage of the circulation; the pressure of the blood onwards is all advantageous, and the pressure of the blood backward is prevented from being a hindrance by the closure of the valves and the anastomoses of the veins." So highly does this anastomosing become that there is no cell but what has its anastomosing blood. In fact, the anastomosing is the circulation.*

No matter where pressure is applied upon an artery or vein you cannot stop the onward flow of blood. Try the experiment by placing your finger upon the radial or ulnar artery and observe if you raise the temperature of the

hand, see if mortification sets in. Anastomoses will return the blood to every tissue within a second's time.

Produce pressure upon nerve fibrils and you directly and immediately interfere with its impulses as it only has one starting point and one peripheral, thus any obstruction midway means a loss of impulses at its peripheral. There is no anastomoses of brain impulses, such is impossible.

Calorific nerves carry impulses which by their expression at peripheral plate endings cause chemical combustion. Chemicals are carried and deposited by the independent serous circulation, oxygen is transmitted by arterial blood circulation, after which the brain impulse causes combustion, which is heat. A function which blood has nothing to do with outside of carrying oxygen to and carbonic acid from. This cannot be interfered with because of the most complete anastomoses.

Veins have the same complete anastomoses and must be identical so that venous capillaries receive as arterial capillaries expell. *It is impossible, coming or going, to impede, obstruct or hinder circulation.* This proven, which is an anatomical and physiological truth, we can readily conclude that blood cannot make or diminish the quantity of heat. The matter cannot help but be carried, the necessity to have heat being the addition of impulses; retard or hinder these and excessive heat or lack of it is the result.

Chiropractic teaches that functions are brain impulses expressed. The blood is a servant to brain impulses, has the single function of supplying material for combustion and other chemical constituents to the tissue cells as demanded by nerves and is there again acted upon by impulses from other nerves of different functions utilizing it as caloric for that cell. Blood circulation is an agent to carry and expel as demands of nerves are made upon it.

Chiropractic brot forth, for the first, the knowledge that heat was direct result of impulse action. Slight pressures upon calorific nerves ending in feet mean excessive (stimulated) combustion, hence excessive heat. Legs are hot, yet circulation, according to all known means or tests, is normal. Pulsation the same in strength and quantity in feet as in head. Proving that circulation did not make

excessive heat. One Chiropractic adjustment *immediately* makes feet normal. What did it? Did the adjustment of a vertebral sub-luxation reduce the quantity, quality or speed of the blood circulation or did it release pressure upon calorific nerves, thus reducing combustion?

Eighty years ago bleeding was the cure for fevers. How about the patient that was bled until too weak to talk? He still had the fever. Did blood do it?

Blushes are supposed to be caused by a "rush of blood to the head." How about the individual who has red cheeks and face having normal heat? Does blood do it?

What about the typhoid fever case of three weeks' standing? Temperature 104 and yet as white as the sheet. No flushed condition there and yet a fever exists. What do these things lead us to? That *blood* has nothing to do with combustion and making the heat of the body. This is a separate and independent function of calorific nerves. Any interference with these impulses will mean disease, too much or not enough heat.

Knowing that impulses directly cause chemical combustion and that many symptoms are the effects of excessive heat due to the direct result of pressure upon calorific nerves, how much better and quicker the results would have been to go directly to the cause, adjust the sub-luxation, instead of treating effects. The Chiropractor directly does that, releasing pressures upon nerves, which perform and control each function, thus getting back to cause. By so doing he uses only one move to each sub-luxation.

Osteopaths teach that blood *can be* impeded in its flow by contracted muscles. Let us refer to clinic case No. 53 and 29. Both are kyphoses of the worst type, muscles are and have been permanently contracted for years and yet *their* pulses are beating normally. In addition; how about the case we recently had of stiff neck, and I believe you could easily have found the carotoid artery, and counted its pulse. Flex the arm, contract your muscles at the same time. Contract and counter-contract to make each muscle tense. Now there exists contractures, voluntarily made, and in that condition, feel the pulse. You will find them beating *just the same*. There is no interference. What must be the conclusion?

For instance, an acute case adjusted this noon. The knee joint was swollen, twice as large as the other. Patient was suffering severe pain. Agony was on her face. The knee was so painful she didn't want the back adjusted. Leaning on my assistant, with the toes of the left foot barely touching the floor, she did get to the adjusting table. Examination proved that muscles were contracted and *there was no obstruction to the blood.*

An Osteopath would say that blood is the cause producer of fever. His treatment would consist in relaxing those muscles to complete its normal circulation and he, like anyone of a hundred practitioners would have *relieved effects in that way.* An M. D. would have injected morphine or cocaine to *relieve symptoms.* But a Chiropractor was called. He *examined the lumbar, found a sub-luxation* impinging nerves on the left and none upon the right. He adjusted it in *one second*, heard it pop as it returned to normal, and said "Get up" and boastingly she walked to the bed. In lying down the leg was straightened, muscles *were entirely relaxed*, something she could not do for 24 hours, for she sat up most of the night with hot water bottles, etc. Did the Chiropractor restore the circulation of blood in that knee in one second's time? Did he relax muscles in just that quick a time by working over two feet away from the affected place or did he, on the opposite, release pressure upon those nerves which convey calorific brain impulses to that area thus reducing excessive heat to normal? The Chiropractor says "Excessive heat is the result of an over amount of brain impulse, calorific in character, going to a certain tissue, which is like the electric spark to the motor. As quick as the finger could be snapped he released that impingement, resumed its normal function and tonight, the leg, instead of being swollen and painful, is normal. Does "impeded blood" explain the *how and why?*

As regards to the "Regulation of the Temperature of Warm (bodied) Animals. *Kirk's Physiology*, P. 600, has the following comments. I particularly direct attention to the connection that he *tries* to make between the nervous systems; some doubts of which still exist in his mentality. His attempts are in the right direction.

"These various influences *are regulated* by the ner-

vous system, and physiologists have long suspected that *afferent* (impressions) arising in the skin or elsewhere may, through the central (Innate) nervous system, originate *efferent* impulses, *the effect of which would be to increase or diminish the metabolism of the muscles and other organs, and by that means increase or diminish respectively the amount of heat there generated.*

"That this is due to a (responsive) nervous impulse is supported by the fact that a warm (bodied) animal, when poisoned by curare, no longer manifests its normal behaviour to external heat and cold, but is affected in the same way as a cold animal. Section of the medulla produces the same effects, as the nerve-channels by which the impulses travel are severed. When curare is given, the (responsive) chain is broken at its muscular end. The center of this thermotaxic (responsive) mechanism must be situated somewhere *above the spinal cord*; according to some observers, in the optic thalamus.

"*We thus see that the nervous system is intimately associated with the regulation of the temperature of the body.* (This) center receive(s) *afferent* (impressions) from without; they send out *efferent* impulses by (calorific nerves)."

If each one wil study blood circulation, arterial or venous, from the standpoint of anastomoses, you will *know* how *absolutely impossible it is to obstruct blood from internal causes.* *External* means may be had by ligature. But there is no means *internally* that can be created to produce the same conditions of a ligature which is the only means applicable to stop circulation of blood.

To have pressure upon blood vessels, whether it be arterial or venous, means a soft must be between two hard substances. As the calibre of an artery is distorted you *are* interfering with *its capacity* (not quality) and immediately it has small anastomosing channels thru which the checked blood flows, so that the circulation loses nothing by the obstruction. No matter where the same condition *might* exist, whether in the spinal cord or the intervertebral foramina. Repress them as you will, *it gets around another way*, makes its entrance thru other openings. The only possible place, where arteries and veins can be pressed by two osseous substances is between inter-

vertebral foramina. Ribs are supposed (by Osteopaths) to be *the cause* of arterial disturbances. Granting (for the sake of argument only) that there can be pressure, it ceases to be a damage if we anastomose the blood thru other courses.

*The P. S. C.* has been pace-setters for all that pertains to original, independent, Chiropractic thinking. The M. D.s are *afraid* to. D. O.s *try* to reason on wrong premises. If they ignore-hide bound sets of rules, there is danger. The first thing done to a student, entering a medical college, is an examination to find if he has brains enough to advertise and if he has, no matriculation follows. If he graduates, and if a member of several societies, then he is "churched."

The ductless glands are an immense item in the economy about which very little has been known. They are as important, if not more so, than those with ducts. *Kirk's Physiology* has the following to say regarding them. The remarks in parenthesis are mine, added to give logical sense in connection with the topic of this lecture.

"The ductless glands form a heterogeneous group of organs (all) of which are related in function or development with the (serous) circulatory system. They include the lymphatic glands, thymus, thyroid, supra-renal capsule, the pineal body, the pituitary body, and the carotoid and coccygeal glands. The function of a gland that has a duct is a comparatively simple physiological problem, *but the use of ductless glands has long been a puzzle to investigators.* (The knowledge of Serous Circulation clears the mystery and but makes of these links a chain.) Recent research has, however, shown that *most* of it, *if not all* the ductless glands do form a secretion, and this internal secretion, as it is termed, leaves the gland by (serous circulation) and thus is distributed and ministers to the (nutritive, lubricating, expansive and moistening) needs of the body. *Many of the glands which possess ducts and form an external secretion form an internal secretion as well.* Among these the liver, pancreas, and kidney may be mentioned.

*"In many cases the internal secretion is essential for life, and removal of the gland that forms it, leads to a con-*



*dition of disease culminating in death.* In other cases the internal secretion is essential.

"The body is a complex machine; each part has its own work to do, but must work harmoniously with other parts. Just as a watch will stop if any of its numerous wheels get broken, so the metabolic cycle will become disarranged or cease altogether if any of the links in the chain break down.

"In unraveling the part which the ductless glands play in this cycle, *it is at present impossible in many cases to state precisely what the particular function of each is; all one can say is, when the gland is removed or its function interfered with*, that the metabolic round is broken somehow, (*How?*) and that this upsets the whole machinery of the body."

In speaking of the spleen the same author says:—"Structure.—*The spleen is covered externally almost completely by a serous coat derived from the peritoneum* (which is serous also) while within this is the proper fibrous coat or capsule of the organ. The latter is composed of connective tissue ("serous in function") with a large preponderance of elastic fibres—

"Besides these direct offices, the spleen fulfills *some* purpose in regard to the (serous) circulation with which it is in close connection. *From the readiness with which it admits of being distended, and from the fact that it is generally small while gastric digestion is going on, and enlarges when that act is concluded, it is supposed to act as a vascular reservoir, or diverticulum to the (serous) system, or more particularly to the vessicle of the stomach.*" The above facts with the knowledge of *having located the Ductus Palmerii*, leading direct from the spleen to the stomach and the close observation of symptoms that follow enlarged spleens, in their reducing, following adjustment, etc. The *P. S. C.* teaches that *this is the organ which makes splenic fluid and at times of digestion empties it to the stomach* "while gastric digestion is going on" thus accounting for its smallness in size at that time, the same as the liver or pancreas empties its fluids into the duodenum. In the stomach it is *gastric juice*, not made by the mucuous glands of the walls of the stomach for they se-

crete mucin, *which is not a digestional juice there more than in the oesophagus.*

The histological fact remains that *all glands have a "fibrous capsule" surrounding them and it is this serous tissue that conveys to the internal and to and from the external juices of each gland.* In speaking of the "Thymus Gland" *Kirk* says:—"Structure.—The gland is surrounded by a fibrous capsule, which sends in processes forming trabeculae, that divide the gland into lobes,—The large trabeculae branch into small ones, which divide the lobes into lobules. The lobules are further sub-divided into follicles by fine connective tissue.

*"The Supra Renal Capsules. Structure.—The gland is surrounded by an outer sheath of connective tissue, which sends in fine prolongations forming the frame work of the gland.* The gland tissue proper consists of an outer firmer cortical portion and an inside soft, dark, medullary portion.

*"Function.—The immense importance of the supra-renal bodies* was first indicated by Addison, who, in 1855, pointed out that the disease now known by his name is associated with *pathological alterations* of these glands. This was tested experimentally by Brown-Sequard, who found a few years later that *removal of the supra-renals in animals is invariably and rapidly fatal.* The symptoms are practically the same (although more acute) as those of Addisons' disease, namely *great muscular weakness, loss of vascular tone and nervous prostration* (general brain to physical inco-ordination.) The pigmentation of the skin, however, which is a marked symptom in Addison's disease, is not seen in animals. The experiments of Brown-Sequard attracted much attention at the time they were performed, but were almost forgotten until quite recently, when they were confirmed by Abelous, Langlois, Schafer, and others. *The effects on the muscular system are the most marked results both after removal of the capsules and after injection of an extract of the glands.* The effect of injecting such an extract on the voluntary muscles is to increase their tone (temporarily, the same as whiskey stimulates.)

*"The capsules, therefore, form something which is distributed to the muscles and is essential for their normal tone; when they are removed or diseased the poisonous ef-*

*fects are the result of the absence of this internal secretion.*

"Whether this discovery will lead to the same important practical results as in the case of the thyroid and myxoedema *must be left to the future to decide.*" (This subject was carried as regards this extract, where it came from and its name in the early part of this lecture.)

"The Thyroid Structure.—*The Gland is encased in a capsule of dense aerolar tissue.* This sends in strong fibrous trabeculae, which enclose the thyroid vesicles—

"Function—*It is difficult to state definitely the function of the thyroid body; it is one of those organs of great importance in the metabolic round; and its removal or disease is followed by general disturbances. It no doubt forms an internal secretion—*

"When the gland is diseased in children and its function obliterated a species of idiocy is produced called cretinism. The same conditions in adults is called myxoedema."

A. A. Erz, D. C., then a student of *The P. S. C.* has made a special study of Serosus Circulation, centralizing his investigations to this latter gland. His observations have been preserved in a very carefully edited paper. Its additions and importance are such that no more fit place could have been found for its perpetuation than following this lecture, and with your endurance I shall read it.

#### **THE THYROID GLAND—WHAT SCIENCE DON'T KNOW ABOUT IT—AND ITS RELATION TO THE SEROUS CIRCULATION.**

The purpose is not to enter into the text-book details of this subject. Recent research on the Thyroid Gland dates from 1887, when Dr. Schiff published his observations on the effects following extirpation. Since then about 36 Monographs, dissertations or special works, have been published (20 by German investigators, 10 English, 3 French, 2 Italian specialists and 1 Swede).

The Thyroid or shield-shaped gland is situated at the front and side of the neck, being closely adherent to the upper part of the Trachea and adjacent parts of the Larynx. It consists of two lateral lobes which are connected across the center by a narrow transverse portion,

the Isthmus. The Lobes are conical in shape, the apex of each being directed upward and outward as far as the junction of the middle with the lower third of the thyroid cartilage; the base faces downward and is on a level with the 5th and 6th tracheal ring, which corresponds to the upper border of the Sternum. Each lobe should measure about two inches in length,  $1\frac{1}{2}$  inches in breadth, and  $\frac{3}{4}$  of an inch in thickness at its largest part. Its usual weight is between one and two ounces. It is largest in children, and larger in females; the right lobe is usually larger than the left. Each lobe is fixed to the Larynx and Trachea by the lateral ligaments. The superficial surface is convex, and covered by the adjacent muscles and the pre-tracheal layer of the deep fascia. The deep surface is moulded over the underlying structures, namely the Thyroid and cricoid cartilages; the Trachea, arteries and nerves. There is an occasional third lobe called the Pyramid which arises from the superior part of the Isthmus, or from adjacent portions of either lobe, or it may be detached and divided into two or more parts, extending as far up as the Hyoid bone. Small detached portions of Thyroid tissue are sometimes found above the Isthmus, and are called Accessory Thyroids. The Parathyroids are small rounded bodies with an average diameter of about  $\frac{1}{4}$  of an inch and are situated near the Thyroid Gland, in relation to the posterior surfaces of the lobes, usually two on each side.

The structure of the thyroid is similar to that of glands in general, corresponding, more closely with that class termed ductless. By this is meant, according to medical and osteopathic authorities, that there is no direct separate duct like the Ductless Palmerii of the Spleen,—carrying externally, the secretion of the gland. However, there *must* exist *some kind* of a duct system, by which the secretion is excreted into our economy, otherwise the gland will become clogged and useless. Its general structure consists of a mass of glandular lobules made up of follicles or minute sacs which are supported by a connective tissue stroma. The investing dense capsule of the gland is serous in function and derived from the continuous serous deep fascia of the neck. It sends numerous trabeculae or bands into the

structure itself as septa producing lobular sub-divisions and partitioning them into follicles of different size, the largest of which are just visible to the unaided eye. The extremely delicate fibrous network, investing the follicles also forms a basement membrane for the epithelium which by a single layer of cuboidal cells lines each follicle. These follicles are filled with fluid or colloid substance which is being formed by the secretory activity of the epithelium.

In regard to the specific function of the thyroid nothing *definite* has been ascertained by our pseudo-scientific friends of the medical schools. The solving of this problem has been left to Chiropractic research. Glands produce a secretion; each *must* have in turn its excretion as the liver, or kidneys. The *so-called* ductless glands, like the thyroid, constitute a transitional serous tissue with a specific cellular structure and chemical activity especially adopted to the performance of a definite function. In fact they secrete one of the most important excretions that is carried throughout the body, doing so by a special duct system in each gland and a general tissue for the entire body, which Dr. B. J. Palmer, its discoverer, calls "Serous Circulation." Chiropractic research, for the first time, proves that the "Serous Circulation" is of far greater importance to our general nutrition than blood, and all glands hold first place in the "Serous Circulation." Their secretions are of greatest importance to the metabolism of our economy, since they are essential to the normal condition and activity of all tissues including the blood and nerves. If we remove, for instance, the Thyroid or the Supra-renal Capsules, the general nutrition *is* seriously disturbed, it declines, and, finally, a fatal termination ensues.

Indeed, our past knowledge of the function of the Thyroid has been limited as it is the outcome of the study of effects following its arrest of development in the child, functional derangement, degeneration in the adult and its extirpation which is attended with fatal results. In case of congenital or acquired causes producing abnormal conditions of the Thyroid, before the age of puberty, when its functions are obliterated, we have this abnormal organ as one of the symptoms of Cretinism, a state of idiocy. Goitres are hypertrophy of the thyroid. In case of myxo-

dema, which, altho a general disease, has, prominently expressed, a local loss of function of the thyroid, we have hyperplasia an abnormal serous change in the subcutaneous tissue as well as mental failure. Thus we conclude, the thyroid secretes one of the necessities for important metabolism and chemical changes, also, that it is this organ which forms one of the substances essential to the healthy working of the body.

The thyroid structure contains the essentials required for secretion; since we find an epithelial surface with a tunica propria of connective tissue, and we have a controlling involuntary or Innate brain impulse supply. It has been observed that the serous secreting cells of the glands are capable of alternate phases of activity and comparative rest. Many, if not all of them, contain minute *intracellular* canals which connect with a network of *intercellular* passages. The intercellular canaliculi open into the glandular lumen, or communicate with the tissue spaces of the tunica propria. This system of intracellular and intercellular canalicula thus serves either as a network of secretory serous capillaries by which the secretion is conveyed from the interior of the secreting cells to the lumen of the gland, or to the duct system through which the secretion is carried over the organism. Nutrient and secretory canaliculi of this nature have been demonstrated in the liver, salivary glands, the pancreas and supra-renal capsules; they have also been found highly developed in the nerve cells, and no doubt can be demonstrated in the thyroid. Further Chiropractic research will enable us to establish the "Serous Circulation" in its completeness; an accomplishment of which every Chiropractor will have good reason to be proud.

My remarks must be confined to the subject, as outlined. We will consider one of the principal diseases of the thyroid, myxedema as it is called by our mystifying medical friends. It is of rather rare occurrence, but we have a typical case of it with us that I had the privilege, in common with you, to observe and analyze. With the kind permission of the patient, I refer to our esteemed fellow-student No. 30. I call your attention to the characteristic serous circulation symptoms so markedly expressed in this case. Myxedema occurs seven times of-

tener in women between 30 and 50 years of age than in men. Dr. Ord, in 1888, published the first account of his observations on this constitutional disease. The lack and loss of normal function of the thyroid is one of the local symptoms of this general disease which is followed by degrees, with an abnormal change and hyperplasia in the subcutaneous tissues over the body, as well as mental failure and final atrophy of the gland. Thus, mind and body are seriously affected. Soon after the onset of this disease we observe a marked increase in the general bulk and weight of the body, especially in the face and extremities. A firm, inelastic swelling of the skin, which does not pit on pressure is noticeable. The skin becomes dry and rough, and is of a brown, yellowish hue. The urine is reduced in quantity; the urea is diminished. The bloated face shows coarse, broad features and its expression dull and unrelieved by any passing emotion or interest. The eyelids are thickened and baggy, the eyebrows raised and arched like those of a Mongolian. The eyesight usually blurred. The mouth seems enlarged, the lips are thick, the nostrils broaden. A reddish patch extends over the heavy cheeks and often over the nose. Especially above the clavicles there may be considerable tumefaction. The hair indicates imperfect nutrition, being brittle and dry, the teeth may be affected with sordes. Severe headaches. Excessive secretion takes place in the stomach and fecal matter is in a costive condition. The body temperature is sub-normal; the patient very susceptible to cold, and also complains of weakness and drowsiness. The body movements become heavy, slow and ungainly; stumbling and falling are not infrequent. Tactile sensations are slowly received. In the early stage no great impairment in quality of mental processes are noticeable. But later on the intellectual functions become slow, the memory becomes defective, the formation of ideas and answers to questions take far longer than in healthy persons. The voice is much changed, becomes monotonous, is not clear nor resonant, and the speech deliberate. Some patients grow deaf, irritable or lethargic. In many cases delusions and hallucinations may finally lead to dementia. The disease is slow and progressive; its natural run being from ten to fifteen years, and even beyond that, as is the case

with our patient. Some intercurrent disease, usually tuberculosis, brings death and relief under medical treatment.

On the other hand, loss of abnormal weight and bulk of body are signs of improvement; the skin by degrees resumes its natural rosy color and becomes moist and smooth; the urine increases; the body temperature gets normal; the body movements become elastic, firm and gainly. In short, all functions of mind and body in course of time, return to normal; co-ordination is re-established, health restored,—under Chiropractic adjustment *only*—if you please;—as our case referred to is demonstrating.

I trust from the foregoing you have learned, with me, the *paramount* importance of the *Serous Circulation* and the importance of the small thyroid gland which is one of an endless chain. I refrained from repeating the different pseudo-scientific superstitions in regard to the thyroid which you can find in any of the medical text books. I am glad to state; the extirpation of this gland, which in my estimation constitutes a crime, is at least considered unjustifiable by all conservative, rational representatives of true science.

To the common or expert medical men, the diagnosis of myxedema seems to be no easy matter, as our patient can testify. In fact, they often mistake it for Anemia or Bright's Disease. Some of the leading physicians of Europe,—whose fame is world-wide, and whose names can be ascertained from our patient,—failed to recognize the true nature of this case.

While a plain student of Chiropractic, of *The P. S. C.* was the first to give a correct analysis.

This humble effort is most respectfully dedicated to the

*Prosperous Patient—*

who so kindly consented to become the object of my observations, the result of which is herewith submitted for the benefit of suffering humanity and the

*Science of Chiropractic.*

Davenport, Ia., 1906-7, P. S. C.

A. A. ERZ, D.C.

With the review next Wednesday evening, this series of lectures will close. One subject has been purposely



omitted because this lecture was so lengthy that no other recourse was possible, other than to make two lectures instead of one as originally intended. I thank you again for your kind and attentive appreciation.

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## REVIEW.

This reconsideration will not dwell upon any one lecture but regarding them in a general sense, showing where advancement has been in the last year. I like to feel, when every day's work is done, that we have made progress. If no point has been carried, in advance of yesterday's, the day is lost. We need all of *Chiropractic* that can be deciphered. Every time a lame person is helped over the stile the world has been given what it is clamoring for. In Chiropractic, you and I have the only science that gives to humanity a specific science of cause of disease in an exact manner and delivers results. I do not mean that we have it all, nor can any one science in 12 years know so much. The past year our work has been unhindered, and in retrospection, I realize, with you, that the last 12 months *P. S. C.* work has brot out more *Chiropractic* than any other four or five years preceding.

I thank the past and present audiences for their attention, also the zeal that has been shown by the "boys" of the school, our friends on the outside, and my co-workers, the professors. I have you all to thank for the interest taken in making each lecture a success. I realize, from the layman's point of view, that the last series, dwelling upon scientific facts, were not the success, that the preceding twelve were. When a lecture on diseases such as paralysis, cancer or rheumatism is announced and attract the attention of any person who has a mother, father, son or daughter, having that disease, they are sure to hear what the Chiropractor has to say.

Those in attendance at the last twelve lectures have been more attentive and select. I would rather speak to ten persons who were interested and grasped the ideas than to lecture to an auditorium filled by those who were *not* interested and could not conceive the thots. In lecture No. 1, on the embryo, we conceded to the spermatazoon and ovum a future unit. That gave to this conception that took place at the union of these elements, a new light, placing it in the aspect of the future child, a phase that no other school has given to it. We have also brought out the idea that fusation of the two elements, male and female, when expanded, was the future adult. Taking it upon the same basis that this concentrated form is the unit, just as

much as the person now, when it lay in the uterus, is equal to the son or daughter, as it would be thirty years after birth.

The expansion is only its maturity of form, which is its shape, quality and quantity. This extensive process is the shaping, and as soon as that embryo has received all that is possible internally, it is expelled from the mother body, and begins the process of maturity to size on the outside.

We next looked into the brain system. If there is any one point that Chiropractic is extremely radical upon, it is this question. We have *one* brain system, altho this alone cannot be considered, but must be divided to make the study complete, into an educated and Innate *nervous* system, altho each is finished in detail. Educated is that which moves at command of the will; moves limbs when walking and uses hands in doing Chiropractic work.

On the opposite, we have an Innate nervous system, that two-thirds of the entire system over which I have no control. It is the impulse conveyed by this system which is performing work on my dinner; acts upon the fœtal matter in getting it ready for expulsion and causing the secretions to be made in all parts of a body. It is that force which is causing nutrition to be carried to all parts. *I cannot command these* powers to act here nor there as I might wish. If normal functions, with all channels free and open, cannot be controlled by Educated man, is it not the height of folly for the same fellow to try and dictate to Innate how to correct *abnormal* functions, when foramina are occluded, nerves impinged? The division exists into that which can be commanded by the will and that which cannot.

We transferred the name of this system. While a portion of it is a *nervous* system, to my comprehension, the term does not convey its entirety. I wish to give one universal name, to show its generalities. Consideration must be given where these nerves come from—brain. To convey or give it a term that explains all, I shall use *Brain System* in preference. The common term but represents the outgrowth or expansion of the former. Immediately we get the conception of brain system we have the added interest of the brain, its functions and ramifications; spinal cord and all its segregations.

*The P. S. C.* has added *another* new study to its curriculum. The brain takes precedence over nerves in point of superiority as its voice or power generator; the thinker and impulse starter; as a forerunner because it preceded them. It is the seat of all intelligence. Previous to this direct *body to brain* connection by means of nerves, it has been "sympathetic," "reflex action," which are but indications of retracing steps; dancing back track; to do over again; to harp on the same string; by one who cuts one's coat according to one's cloth.

Does any school consider the *brain system* and its nerves in connection? No. Altho a few in the field have attempted monographic imitations about Chiropractic, *this* foundation upon which Chiropractic rests is ignored. I have yet to find any publications, journals or books, that technically or scientifically have *advanced*, by discoveries, its study, outside of *The P. S. C.* Several journals have reiterated what they have copied from the literature and ideas as advanced by *The P. S. C.*, but the above remark is above question. It is an original physiological discovery and although it has always existed, give the *proper man* the credit for finding out. The author has certain highly developed Innate faculties and years of practical experience, with the use of the largest osteological collection in the world, which is a necessity to give substantiation to the original thinker, and these, connected with superior intelligence, has and will continue to make him capable of deducing facts that no one else has or can see. *It is that peculiar individuality that makes The P. S. C. a pace-setter and its students win the race at every turn.*

With this brain system we are placing behind the nerves something which controls their output. Previous to this the M. D. has looked upon brain as *brain matter*, composed of so many convolutions, fissures and lobes. He can tell you *what kind of tissue* it is, that there is a spinal cord and nerves. He does not say tho, that one is a counterpart of the other nor maintain that one could not exist without the other.

Conan Doyle says "*Observe things.*" You strangers have passed those steps for the first time. What proportion of you can tell how many there are? None. I question whether half could tell whether they are pine, oak,

walnut or birch. *Train your senses to observe.* A man walking in front of me, today, stepped over a pocket-book. I *observed* the lady who dropped it and he didn't. Why? *His observation was limited.* Many people go thru the world *seeing things*, sometimes seeing snakes. (Laughter), but never *observing* them. Many men make fine personal appearances to show external beauty but the *observing* man, penetratingly, sees only shallowness. The keen observer is he who perceives when you think he is in the abstract. He itemizes all ideas, salts them away, places them in respective pigeon-holes and some day it is he who gathers the innumerable observations of a specific character together and springs upon the world a Brain system or a Serous Circulation because, *he has observed while you were looking.* Your *seeing* abilities will pooh hoo his observations because your penetration is not as sharp as his.

The next immediate step in connection with the brain system is to consider the senses and those organs which have the ability of interpreting the incoming impressions or observations. Man, outwardly, is known to have at least five, but the little pig is just hog enough to express one more. Place him at two or three weeks old, in a bag and drive ten or twenty miles away and when let alone he runs home. A *Sense* of direction.

Some women have this perception highly developed. Twist them as much as you will and ask them to locate certain spots in a foreign city and they will do it. Man has more outward senses than he is given credit for. We observe five of the Educated, but how many more of the Innate that are unsensed is a question that yet needs determining and future Chiropractic investigation.

Senses are for Innate Intelligence to determine two things: (1) What is going on externally to her castle to protect the inner man, and (2) to know exactly, at all times, day and night, what the inner man is doing. Quicker than you and I realize it, after a violent jar, the muscles are suddenly contracted. Your educated did not do it. The muscles are drawn taut before you or I know it. This is but one illustration of how Innate, thru Nerves, going inward, preserves the body from force or contusion.

Suppose we should get poisoned; medicine is taken in

the form of morphine or laudanum with the intention of committing suicide or thinking it will cure some disease. Innate would immediately adapt her forces by sending impulses which will contract the oesophagus and stomach purging its contents. *You cannot contract your stomach to heave its contents.*

A sense is that interpretation that Innate places upon impressions when received at the brain from the external. For instance, I put my finger into hot water. How do I know it is the opposite of cold? The finger alone, has no intellectual pursuits. Certain impressions are received at that moment at tactile corpuscles and, interpreted by the brain, "senses" them.

For instance, I maintain this pointer is square. With my eyes closed I cannot see it. It cannot be smelled or tasted. Then *how* do I know? By turning that around between the fingers certain impressions follow to the brain. Sense, again, is but that interpretation of external things that the brain places upon impressions. Pain is the interpretation of abnormal external conditions.

Let us dare to *observe* another link in this chain; an idea that no one else has *seen*; *that directness of the path that carries impressions.* Where do these nerves go? Considering the foregoing illustration—thru the arm; spinal cord to the brain. *There are no switch stations.* The impressions proceed in a direct manner, then if that substance is found to be *hot* it would be dropped. Why? Because your brain interprets it and *knows* it is damaging to tissue. The muscles contract and draw from.

If any other school has ever questioned whether there was or was not a sympathetic nervous system I have not seen it. Schools, medical and osteopathic have always taken this system as a matter of fact, as being the order of the day, a custom long fallen used to; following the fashion as a matter of course, and coupled with the lack of knowledge of a brain, *with its mind or mental intelligence*, for which little less than contempt; turning a cold shoulder upon; trying to take the starch out of; to tread or trample under foot; not to care a continental; all poppy-cock; it was "small potatoes and few in a hill; an empty noodle; has been shown which has made a wall so high and thick that the layman with superstition over his eyes

could see so little that attempts to scale this wall were futile. It required a type of man whose observation was deep, concentrated and penetrating to go thru and reach the top of this with *a home hewn ladder*, this hocus-pocus-make believe, hanging out false colors; throwing tubs to whales proposition. The Chiropractor *has* scaled this wall, stone by stone, until *he stands on top* and is capable of *observing* how small the man below is. The above pulling of wool over one's eyes has been handed down as an heirloom and *The P. S. C.*, with its present faculty, are the first who ever dared to question it. There are indisputable facts that it is not true. This school, for the first time this winter, has opened the breach and stormed its impregnable (?) walls and if you ask my reasons for it, I would say: Briefly—"Sympathy," according to *Dunghlison, Gould's Dictionary*, the encyclopediac medical dictionary, is some transformation which takes place *in nerves, "by means unknown."* This change is supposed to take place in this something kind of a system "*by means unknown."* You, with a prophetic vision; a flight of fancy; a stretch of imagination; castle building peculiar to yourself; figure with fanciful numerals; giving rein to your chin music; trying to crack, or cudgel your brain, are supposed to visit the land of dreams—(Health) and deduct the possible factors of ignorance, not to know a hawk from a handsaw, having films over your eyes, and unable to see or have anything to make something with. You are supposed to gild the pill with make-believe and gouge it down with a feint and then set the question at rest by being in a perpetual stew. When we have dared to go behind the superstitious fellow who has always shared these mysteries, it clears everything which has been *before*. Instead of the Chiropractor saying "*by means unknown,*" he definitely states *what power* is that expresses these actions and he has proof of what channels this force goes thru. A specific, pure and unadulterated, philosophical Chiropractor has a direct path, from brain to tissue or vice versa, for every nerve ending in tissue, and beginning at the brain. No matter where the fibre is, *it must have* a starting point at some brain cell. If you can conceive of the grandness or unlimited facilities of that thought, you will see that we have something different than a "sympa-

thetic nervous system." Man is too grand an object to run without a brain that personifies thots or interprets impressions. Therefore, I must discountenance a sympathetic nervous system and drop reflex action because the latter is that change which is *supposed* to take place in the former. If we disprove one, the other cannot be.

If *you* comprehend, the obstinacy of "reflex action," how it sticks to nothing, is wedded to an opinion, you can then bring into resurrection that which thousands for thousands of years have been trying to clean out of their heads; which, gathering from the value that has been and is being delivered to humanity is still consigned to the tomb of the Capulets. You will have a knowledge at basis, equivalent to that oscillation, to and fro; up and down; backwards and forwards; wobble-wobble movement that they have in vain tried to subdue but cannot.

For instance, here is a disease and there a spinal segment. This disease has two nerves. A stimulus takes place at the peripheral of that fibre; goes to spinal cord and somehow (as we are informed) these fibres inter-cross. They *reflect* to some fibre somewhere; may go to the spleen; but is just as apt to go to the stomach or heart as the point from which it started. If it "reflects", kisses the rod, licks the dust; humbles itself; is willing to play only one of a thousand fiddle strings, (nerve fibres) all is well, but, according to superstition, it must gab, jabber, cackle, rattle, gibble-gabble on the return what it has received. If it wakes a wrong passenger external man howls louder; if luck should allow him to get a few impulses, then he pats himself on the back. It is rebounding *disease upon disease, which but makes the disease worse* and *that* is the principle of medicine and osteopathy in accounting for your diseases.

When a man starts, to reach a certain point, he is not ashamed to say so and tell the path thru which he came. When he attends a medical college it is to study *medicine*. He does not go to study causes, but what little he has is based upon bacteriology—the present fashion. If he is puzzled as to what to name symptoms, when in practice, what must be his position as regards cause, of which he is not posted? *The P. S. C.* has, during the last year, dared to question the sympathetic nervous system and are brave



enough in the backbone to place in preference that *which you can place your finger upon and say, there is the cause of this disease*. Only one, who has discovered and developed the fundamental ideas surrounding these branches, has sufficient grit to maintain their present state of efficiency and continue to unsolve them for future perfection.

Many of the so-called sympathetic diseases are direct responsive actions. What Chiropractors term "adapted conditions." It is not a disease and represents no subluxation but an accommodating change to maintain that first law of Nature—preservation. Your hand was placed against something which burned the flesh and a blister was formed. A blister is not a disease. It can be in some cases of general excessive heat, but not in this instance. Did you ever reason that behind this was an *intelligence* that thinks "If I allow that hand to remain it would be burned?" The first layer of the epidermis is raised and a sack of urea is formed. It was created to protect or act as a non-conductor to the excessive heat outside. How often have you noticed when a person was scalded by heat that there *were* blisters? My advice is "Leave the blisters alone. Do not prick them." When Innate put them there she had a specific purpose and knew what she was doing. Her superior knowledge is more capable of regulating them. "What God has joined, let no man break asunder" is the Bible's commandment. Don't argue with superiors. When this sac has served its purpose Innate will dispose of it.

We have taken up briefly the analysis of the urinary and alimentary tracts. Chiropractic differing as it does upon fundamental basis its superstructure must correspond. It is our aim to have essential principles thoro and all other studies correspond. I do not mean by that, that we claim to be cranks or supremely radical but, looking as we do upon past educations as wrongly based, we must originate new ideas to replace those which are dismissed. When I say an M. D. or D. O. *diagnose* diseases I mean just that. Let us analyze the thought "diagnosing diseases." The D. O. or M. D. enters a sick room or has a patient at his office. His questions are confined to "What is your disease?" Pain so and so, fever, don't urinate, bowels do not move, gas upon the stomach, head

dizzy at times." He gathers symptoms—juggles them around, meanwhile churning them thru his mental superstitions, seasons with a pinch of a thrice told tale, doles out a little of a long yarn of hypothetical terms, considering the title with the boullion possessed by the sufferer and finally delivers the bolus entitled "Misnomer"; adds, subtracts, divides and then multiplies; sums up and down "by means unknown" with symbols of dead languages until he decides that certain sympathetical medicines are worth trying to reflect the disease anywhere else but where it now is. He has "diagnosed" the disease, jumbled the symptoms into one name. When asked "what is *the* cause?" His reply is "A cause *is* a cause because a cause is a cause." *Causa calet, vis est notissima.* "The cause is hidden; the effects are notorious."

What does the Chiropractor do? "What are your symptoms?" Sixteen perhaps are named. All of those have *one* or more sub-luxations. He knows, just the moment that person says excessive heat of the stomach that there is (and where it is) a pressure upon a calorific nerve. *He has analyzed that symptom back to cause.* The patient will tell "I have a great deal of gas from my stomach." The Chiropractor will say "That is the result of excessive heat."

Let us go a step farther. The bowels are constipated. The D. O. and M. D. say "That is from indigestion." The Chiropractor—"nerves going there from another sub-luxation are paralyzed." There is pressure which conveys motor brain impulse. He has analyzed symptoms back to *cause*. Every symptom is followed thru the same analysis, back to primary sources.

The osteopath is trying to build a magnificent castle upon a quick-sand basis with a sympathetic nervous system and a reflex action. Every time he lays a brick it sinks. At times he feels certain he has it settled but when pressure from other sources are more squeezing he will endeavor to sink some more another time. He is following in Chiropractic tracks very fast. This he regrets doing but *The P. S. C.* is forcing him to the issue and time is when, if an osteopath desires to keep up in the race he will be in the band wagon with us. His party spirit is commendable so long as it be practical but it soon becomes

one of a multitude of armaments; then it is throwing sand in the wheels; turning one's back against; to fly in the face of; to kick against the pricks of Chiropractic and like crossing one's tracks or trying to stem the torrent of Chiropractic.

Of the following two systems I prefer the urinary as it is the best systematic study. We took these various organs and resolved them back to original tissues. Each was resolved to function. The definite path or avenue of each nerve to each tissue was located. The structures which combined to make an organ; two or more organs put together made a system of irrigation and in the urinary system we found or grouped together organs which worked harmoniously. Innate was shown to be capable of coming in contact with every tissue cell from day to night, from life to death. When you can get that specific, you are reaching something which is scientific and cannot be answered in any other form.

We shall next encroach upon what is to me one of the most interesting and necessary physiological truths, long ignored,—Serous Circulation. I am glad it has been brot out. Many have remarked "It is a surprise that *you* should have discovered it." My reply was: "It is not astonishing that I should have deciphered it, but the wonderful feature is, why was it not discovered before? M. D.s have been cutting, mutilating, butchering thousands of bodies, both dead and alive, and they have not deduced today, anything relative to serous circulation, which I claim is the very foundation that holds man together. You might have a bushel of tissue and unless you add water it flies to the four quarters of the globe. If the cementing material is absent then "Dust to dust and earth to earth," the reverting to original conditions is the result. We cannot overlook the fact that serum, urea or water composes two-thirds of our body. While called *serous* circulation, it is, in a measure, a misnomer because part of it is urea and part serum. I have named it serous because that is its central condition. This has been so well carried that a review would be tiresome.

We next assumed the subject of functions. Function is characteristic action. All life is action, which is motion. Life is motion and vice versa. Function is that

characteristic motion which is given a name. Action reverts to the brain from which its impetus, in the character of brain impulse, starts. Brain impulse enters all tissues and assumes various characters. That is, one impulse will be calorific; others excretory; secretory; reparatory, etc. The motor function causes churning food in the stomach, or issue juice to lubricate the mouth. The function is but naming a peculiar type of action.

In the foundation of function we led every motor impulse to the brain, giving it a starting point which the M. D. does not do. *He* does not know where it comes from or what it is. His study is incomplete. He looks upon man from a physical standpoint and fixes up a material chemical compound and gives it to the physical disease. If he ever gets beyond the feathering of his nest, taking care of number one; to further some professional end; he says it is "Nature", which is significant to not making both ends meet; out at the elbows; dead broke; is being put to flight by a person who is on the scent in hunting for facts.

Chiropractic has assumed a new position, thrown aside the worn clothes; has bought no pigs in the poke; tempting superstitions, assuming false pretenses without ballast; happen what may basis; but on the contrary have mounted guard; reached sure ground; the coast made clear; came forth from the dusky woods; caused storms to be blown over and have analyzed what *Innate* is, where *Innate* works, what *Innate* does, *how* she does it, and putting it thru that *analysis* gives us the complete philosophical knowledge that today stands unequalled.

We also want to bring out briefly what Chiropractic is. In the *Science of Chiropractic, Vol I.* we find it is the *science of cause of disease and art of adjusting that by hand.* Bear in mind the emphasis that I place upon those words. It is *not* a science of *disease*; but *its cause.* *P. S. C.* students, when graduating have spent but a small portion of their time studying symptoms of diseases, the largest majority is devoted to causes, *what they are and how to correct them,* by *hand* adjustment is *Chiropractic* work.

Let us analyze cause. Man is composed of two structures, soft and hard. It is a positive fact that the brain (soft tissue) transforms impulses. These pass thru *soft*

substances, nerves, until it is deposited at a tissue cell, which is still a soft material. All that which makes power and expresses it is a *soft matter*.

Do nerves—soft substances—pass thru, around or are they encompassed entirely by a hard? Yes. They are enclosed within the skull, which is its dome. Thru the vertebral column is a long canal containing the spinal cord. From this issues bundle of nerves thru little openings, formed upon the sides of the spinal column, technically called intervertebral foramina. These apertures can be enlarged or made smaller by normal or abnormal movements of vertebrae upon their articulation.

Suppose, while performing the thousand and one occupations, you receive a sudden wrench, twist or strain; cause a sub-luxation; make that or those openings smaller than normal and cause a constriction; can you not see that *occlusion would shut off the transmission of brain impulses, that which is power to a body thru nerves?* Shut off force and what is the result? *Inability to perform action.* Partial lack of action means disease; if complete it is death. No action—death; partial action—abnormal condition; partial death—disease.

The disease producer, in man and woman, *the causes of all diseases* are in sub-luxations of vertebrae, impinging nerves as they pass thru the spinal column, at various regions because *that is the only place in the human body where it is possible to have a nerve so constricted as to shut off brain impulses.* There is no other place where nerves are surrounded by bone. Therefore, Chiropractic is fundamentally based around an exact and precise knowledge of that spinal column because that is man's backbone. You have heard the quotation "Brace up; show the world you have *backbone.*" When they come to *The P. S. C.* that is what we teach and adjust them for. When they leave that is what they have, both mental and physical. If you are shy, come to "CHIROPRACTIC'S FOUNTAIN HEAD" and get rejuvenated.

In the lecture "Disease; What it is and Its Cause" the first elaboration was upon the inability or excess of action—dis-ease. Only *two* are a possibility, that tissue in which there is not enough action or its opposite—too much, as shown in Diabetes or Bright's Disease of the kid-

neys. The bowels may represent the two contrasts as in diarrhoea and constipation. The same is true of heat or any other function. Just what name symptoms ought to have depends upon *who* is to title them; in *what way* he proceeds and *what process* is used. The M. D. diagnoses symptoms and re-echoes thousands of diseases. The Chiropractor *analyzes* effects to two diseases, excess or lack of, any one or a number of combinations between 7 primary functions. *The naming of the cause is our profession.*

According to medical principles the latitude between opinions are only restricted to the number of physicians who see the case. One man, for example, called upon and paid for 16 different examinations by the best physicians in New York City. For an answer to "What was the disease?" he received 16 different diagnoses to the same symptoms given.

In the latter lecture, we elaborated very carefully, the allegorical illustration of man as compared with a factory. We likened him to a complete factory with its many machines and as they were brought to light we could see how much greater man was than the factory and how man displays greater discerning judgment to the factory than to self or family. In mechanical work there are only three hundred and ten movements, and they are in the human body.

Man cannot make a ball and socket joint so nice, a ball bearing proposition so perfect but that he will find its superior in the human body.

At this, the last lecture of this series, I wish to thank the students and professors for the kind help they have given me in the school room and out of it. We have had a hard row of stumps to fight and while we want to make the school and headquarters a success, it can only be done by the help of all true and sincere men. It is principal and that alone, that can keep kindred minds together. Mere sentimentality or friendship will not bind *The P. S. C.* to any of its students or graduates, for any length of time, but it will back for all its worth to those who stand for what it *does*. Remember, original men have always many disappointments and discouragements, but they must go on. Do what is just to the science, which they represent, and all will be well.

The labor on both sides has been unlimited; ours in imparting to your fertile brains that which was new, and yours to receive that which was against past teachings; but "What is done willingly is a pleasure" has been true in our associations.

I know we have been stern, strict and determined, perhaps to a fault, but *you* will reap the harvest. Professors in any school know what they have to teach; and how it is best to give it. Do not expect him to let you slide, for in *The P. S. C.* such things do not occur "by means unknown" nor is "sympathy" shown nor utilized to the intentional wrong-doer.

Chiropractic is a new science. The men who have discovered and developed it, from birth to the present high state of efficiency, are peculiar and they teach it in an odd manner, the ideas conforming to the discovery, but I can assure you that after each lecture you have left with "I have some new facts to think about." The character of the science but expresses its creators. And if, after concentrated study you are pleased we shall be glad to hear from you or, if you desire to investigate further, remember it is to our mutual interest to allow me to convert your interest to a practical possession of your own. If you reside outside the city, correspondence will be our pleasure. We know but little, but that amount is greatly in excess of that possessed by our predecessors, who knew a great deal less.

Again I take pleasure in thanking you all, most sincerely. I appreciate all your efforts. We have had our many discussions but they have been pleasant and scientific ones. I esteem the cross-graining the students have given the teachers, for it sharpens the mental edges. When the Fall and Winter of 1907-08 comes, another series will be given—one each Wednesday. You will all be cordially welcome. You have made of these lectures a brilliant success and for your appreciation my efforts have been to discover farther and deeper ideas, in addition to those presented in the past, to elevate that science which we all hold most high—*Chiropractic*.

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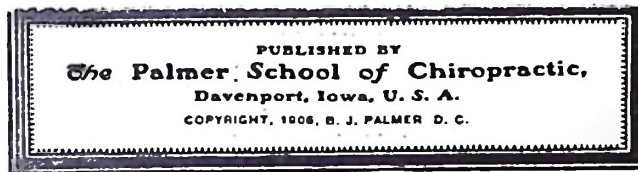
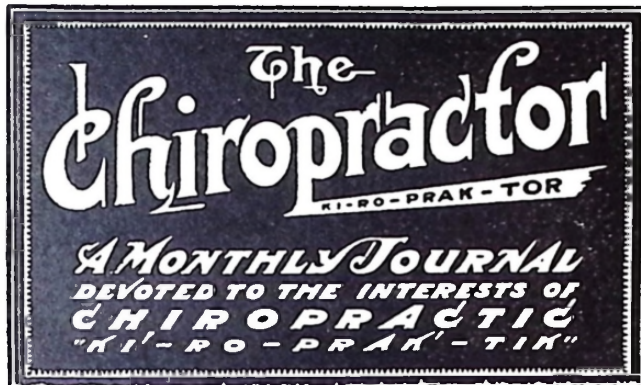
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Yours very truly,



C. T.

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